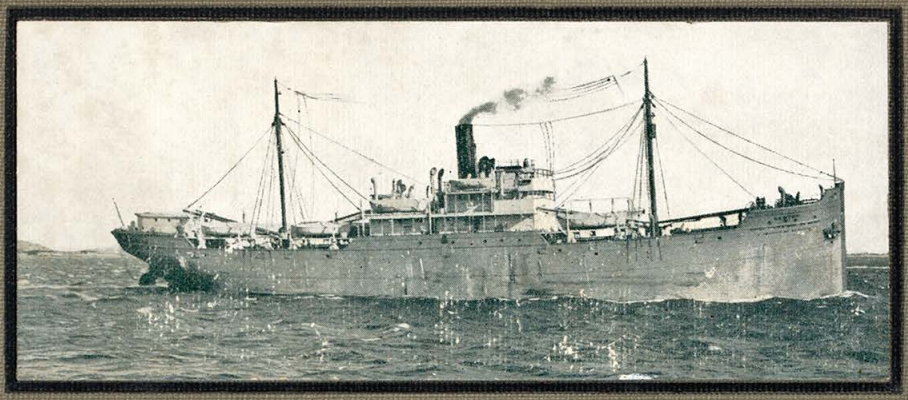

THE YOUNG WIRELESS OPERATOR — AFLOAT

LEWIS E. THEISS

The Young Wireless Operator—Afloat

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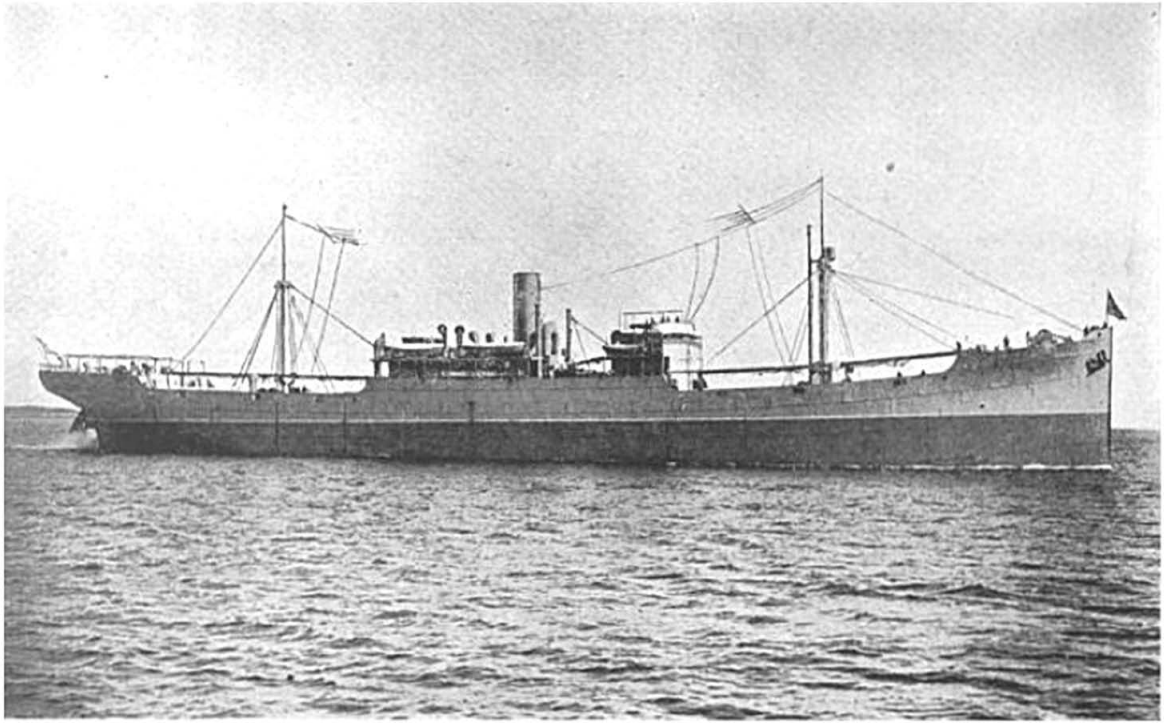

The Young Wireless Operator—Afloat

or

HOW ROY MERCER WON HIS SPURS IN THE MERCHANT MARINE

By

LEWIS E. THEISS

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THE YOUNG WIRELESS OPERATOR—AFLOAT

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Dedication

To few of us is it given to know where our arrows come to earth or what shore is washed by the ripples we create in the sea of life. But so much is certain: somewhere our arrows *do* come to earth, and somewhere the waves we set in motion *do* wash the beach. And each arrow shot from our bows and each wavelet we set in motion is fraught with unseen possibilities for good or evil. Whether we be man or child or growing youth, we cannot escape the responsibilities entailed; and, if we do with our might what our hands find to do, our arrows and our ripples in Time's sea can cause only good.

In His wise providence the Almighty has so ordained that the faith and enthusiasm of youth are often more effective than the coldly reasoned acts of maturity. If so be that many lads shall read this and companion stories of the wireless and find therein either pleasure or profit, they will owe their gain to the fact that a youth who has passed to the great beyond shot his arrow into the air with all the courage and enthusiasm that a high soul and a brave heart could command. To that youth,

Nelson Kimball Wilde

whose boyish enthusiasm for radio communication first interested the writer in wireless telegraphy, this book is affectionately dedicated.

Foreword

TO-DAY the American Merchant Marine commands the respect of the world, for in increasing numbers vessels flying the Stars and Stripes are seen on every sea.

That our boys may know more about the many experiences which such vessels encounter and to tell the story of how Roy Mercer made good as a wireless operator upon one of these vessels, is the purpose of the author in penning this story of life on the high sea.

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The Young Wireless Operator—Afloat

CHAPTER I

THE NEW WIRELESS MAN

ROY MERCER sat by a window in a fast express-train that was rushing across the Newark meadows on the way to New York City. Three years previously Roy had made a similar trip. As he looked back now over those three years, it seemed to him impossible that so much could have happened in so short a time. When he had first crossed these same meadows the country was engaged in deadly warfare, and he had come, with other members of the Camp Brady Wireless Patrol, to help the government find the secret wireless system by which German spies were sending abroad information as to the movements of American troops and American transports. Long ago the wireless patrol had accomplished its work and gone home. Now the great World War was ended. And although peace had not been formally declared, more than seven months had already elapsed since the signing of

the armistice that had brought an end to the terrible conflict. In that period the nation had swung back into its accustomed channels, and the activities of peace had succeeded the feverish efforts of war.

But the thing that had made the greatest difference in Roy's life was the death of his father. Long ago the cherished hope of a college course had disappeared, for upon Roy had devolved the duty of caring, not only for himself, but also for his mother. Manfully he had put aside his desire and taken up the hard task that confronted him. Through great determination and perseverance, coupled with the devotion of his mother, Roy had managed to complete his course at the Central City High School. Now, at nineteen years of age, he was about to make his way alone in the world.

His active outdoor life, and the hard work he had been compelled to do since the death of his father, had developed Roy both physically and mentally. Always alert, keen, and quick, in these last few months he had developed unusual qualities of self-reliance, trustworthiness, and good judgment that promised well for his future success. But Roy was fortunate enough to have more than good qualities to start life with. Unlike many boys who go to New York to seek

their fortunes, Roy already had a job. He was going to be the wireless man on the steamship *Lycoming*. The vessel was one of the new steamers built by Uncle Sam during the war, and was very shortly to make her maiden trip as a coastwise liner between New York and Galveston.

As Roy sat musing over the events that had led up to his present journey to America's greatest seaport, his train of thought was suddenly interrupted by the loud voice of a brakeman.

"Manhattan Transfer!" shouted that individual. "Change cars for lower New York. This car goes to the Pennsylvania Station at Thirty-third Street."

The train came to a grinding stop. Immediately there was great hustle and bustle. Passengers poured out of the coaches and crossed the narrow platform to the waiting cars on the farther track. Others stood on the platform ready to swarm into the newly arrived train. Roy's destination was lower Manhattan, but he made no move to change cars. His orders did not require him to report for duty until the next day. He was in no hurry. He had come a day ahead of time in order to familiarize himself with his instruments and his new quarters, and make the acquaintance of his future associates. Just now he wanted to see something of the city. So

he sat quietly in his seat, watching the hurrying throng on the platform.

Presently there was a slight shock that jarred the great steel coaches, and Roy knew that the big steam locomotive that had hauled the train from Central City had been replaced by an electric locomotive that was to pull the train through the tunnel under the Hudson River. A few seconds later the conductor cried out his warning, and the train glided smoothly away from the long platform. Soon it was flying across the stretches of meadow that lay between the junction point they had just left and the landward side of the Palisades, where it would plunge under ground.

The very last leg of Roy's journey had begun. The very last step in that long stairway of years that led from the cradle to man's estate was under foot. For though Roy lacked two years of his majority, he was henceforth to take a man's place among men. Roy thrilled at the thought that inside of twenty-four hours he would no longer be plain Roy Mercer, the Central City High School lad, but Mr. Mercer of the Marconi service, with his own quarters aboard a fine ship, a place at the officers' table, and a smart uniform. Perhaps the idea of the uniform appealed to Roy quite as much as did the knowledge that he was about to take his place among the ship's officers.

His heart beat fast, and his whole being thrilled with pride at the thought that he was the youngest operator in the Marconi service. Roy fairly hugged himself as he thought of his good luck in securing such a desirable berth.

Then the thought came to him that perhaps it wasn't all luck after all. Certainly, he thought, he must have deserved at least a part of his good fortune. There was nothing conceited about Roy. But he knew, as no one else could know, how hard he had worked to perfect himself in wireless telegraphy, and how faithful he had been in the performance of his duty as a member of the wireless patrol. For it was the reputation that he had made during the wireless patrol's search for the secret wireless that had won him his present position as wireless man on the *Lycoming*.

Straightway he fell to musing over the events of the years that had passed since his first summer in camp at Fort Brady. Vividly he recalled how he and Henry Harper had slowly and laboriously constructed their first wireless outfits after some blueprint patterns sent to Henry by the latter's uncle; how every member of the Camp Brady group had made a similar instrument; how the little band had become the wireless patrol when war threatened, and how they had run down the German dynamiters at Elk City. With pride he

thought of his recent services in New York, when he and three other members of the wireless patrol had been selected to help the United States Secret Service uncover the secret wireless of the Germans. Roy was not the sort of boy to flatter himself, but he knew well enough that never in the world would he have been accepted in the Marconi service at his age or been made wireless man on the *Lycoming* had it not been for the efficient work done in days past.

"It's a mighty encouraging thing to know," said Roy to himself, "that my getting the job wasn't all luck. If I earned *this* place, I can earn a still better one. But it means hard work. It means that I've got to be absolutely faithful in everything I do, always on the job, always on the lookout to help the company, always courteous to passengers, always helpful to my captain. Gee whiz! It's some job ahead of me. I can see that all right. And I can see that above everything else I've got to make good with my captain. What he says about my work will determine whether or not I ever get ahead. But I'll make good. I've just got to. I've done it before and I can again. But it means work, work, work."

Roy's heart beat high with courage. His jaws tightened and a look of determination came into his face. Then succeeded a glow of pride as Roy

thought of the times he had already been tried and had made good. He smiled with satisfaction as he recalled that it was he who caught the message of the German spies at Elk City.

How well he recalled his vigil that night. How long the hours were. How dark and still it was there in the forest, with his comrades of the wireless patrol all asleep and he alone left to guard them and to keep watch for forbidden radio messages. He recalled how sleepy he was, how he had fought off his weariness and listened in, hour after hour, for suspicious voices in the air. Even now his heart beat faster as he lived over the final triumph of that night. He could almost hear again that faint little buzz in his ear that proved to be the secret message they were watching for.

Suppose he had been asleep at that instant. Suppose he had been unfaithful in his watch. Suppose he had relaxed his vigilance for even a few seconds. The message would never have been intercepted. The dynamiters would never have been caught. The people of Elk City would have paid for his faithlessness with their lives. Roy shuddered at the thought of the awful wall of water that might have overwhelmed the unfortunate dwellers in that city had the reservoir been dynamited.

"But I wasn't unfaithful," muttered Roy to himself. "I did my work right, just as I am going to do it on board the *Lycoming*. And if I do, I'll win the good-will of Captain Lansford, just as sure as I won that of Captain Hardy." Again a look of determination came into Roy's face. "I've just got to make good," he muttered to himself. "I've just got to. And I will."

A subtle change came over his face. Once more his mind had gone back to the scenes about Elk City. He was thinking of his secret journey in a motor-car through an isolated and rough mountain road with the outfits of his companions. Vividly he recalled how a big boulder had come crashing down the mountainside, breaking his steering gear. He smiled with satisfaction as he recalled how he had met the situation by improvising a wireless outfit with some wires, an umbrella, and the battery of his car. How pleased his captain had been!

"I'm going to please Captain Lansford just as much," said Roy to himself, and once more that look of determination came into his face.

Then the train suddenly shot under ground and daylight was blotted out. Down, down, deep into the earth Roy could feel the train descending, though the grade was very gradual. His ears began to feel queer and he knew that he

must be in the deepest part of the tunnel. Then the train moved upward. In another minute it shot into the light. Roy glanced out of the window at the high cement walls on either side. They were at the Pennsylvania Station. Roy rose and moved toward the door. His face was flushed. His pulse beat fast. He felt like a runner toeing the mark. He was about to begin the race of life. He felt fit. He was trained to the minute. His whole being pulsed with joy. He had left boyhood behind. Henceforth he would be a man among men. In every sense he determined to be one. All aglow with high resolve, he passed out of the train, through the great station, and into the roaring streets.

The glow of satisfaction faded from his face. Cold and hostile seemed the city. The rushing traffic appeared cruel and heartless, threatening to overwhelm even the vigilant. Passers-by were as cold and unfriendly as the hard and echoing stone pavements. They brushed by, seemingly indifferent to any one or anything but themselves and their own concerns. The very air was raw and chilly. The entire atmosphere was oppressive. It seemed to take the heart out of Roy. It made him feel how tiny he was, how insignificant in comparison with this great aggregation of forces that men had brought together. Sud-

denly Roy realized that this was the thing he had to fight—this roaring thing called a city, where every man's hand would be against him, where he could get ahead only by brute force, by overcoming whatever obstacles rose in his way. Apparently there was not a soul to help him. Success or failure depended upon his own efforts. The thought was bewildering, crushing, disheartening. For an instant fear clutched his heart and blanched his face.

And that was not because he was terrified by the noise of the unaccustomed traffic, or confused by the hurry and bustle. Those features of the city's life were as familiar to Roy as the city itself was, for in the weeks he had spent in New York during the search for the secret wireless, he had become well acquainted with the geography of the town. The difference was that then he was with friends. Henry Harper and Lew Heinsling and Willie Brown were with him, and their beloved leader, Captain Hardy, was always watching their movements to keep them out of trouble and direct their efforts. Then Roy had been among friends. Now he knew not where to find a friendly face. For the first time in his life he was realizing, as thousands of boys before him have realized, the awful loneliness that can come to one in a big city. The feeling almost over-

whelmed him. Gone were his plans to see something of the city. A friendly face meant more to him now than all the sights New York had ever held.

"I'll go straight to the *Lycoming*," said Roy to himself. "Even if I don't know any of the men on board, they will at least be friendly."

He hurried over to Ninth Avenue and caught a south-bound elevated railway train. In less than half an hour he left the train and made his way to the water-front. The vast expanse of asphalt known as "the farm," that borders the Hudson for miles, was seething with traffic. Skilfully Roy picked his way across the wide thoroughfare, dodging trucks and drays, and heading straight for the big piers of the Confederated Steamship Lines.

The watchman at the entrance stopped him and demanded to know his business. Roy explained.

"Go on," said the watchman, but he looked at Roy suspiciously.

Roy passed on into the great pier shed. At one side of the pier lay the *Lycoming*. Nobody paid the least attention to Roy. He made his way aboard the vessel.

"What do you want here?" asked a sailor gruffly, as he slouched on the gangway.

"I want to see the captain," said Roy.

"He's busy. Come around later," replied the sailor.

"I'm the new wireless man," explained Roy.

"I didn't recognize you, sir," said the sailor, instantly straightening up and touching his cap. "The captain is in his cabin. This way, sir." And he led Roy to an upper deck.

"Come in," said a gruff voice, in answer to Roy's knock.

Roy pushed open the captain's door and stepped inside the cabin. "I'm the new wireless man, Captain Lansford," he said briefly. "My name is Roy Mercer."

The ship's commander rose to his feet. He was fully six feet tall and large of frame. His hair was black, and heavy, bushy, black brows almost hid his dark, piercing eyes. His nose was large and hawk-like. So weather-beaten was his skin that it seemed almost like leather. For a moment he uttered not a word, as he looked Roy over from head to foot. Then, in a tone of utter disgust, he said, "You—a wireless man! Bah! A wireless babe! I'll see about this quick," and he stalked angrily from the cabin.

"Wireless man! Bah!" repeated the captain as he hurried down the stairway. "Thirty years I've sailed the seas and the only wireless I ever

saw was God's lightning. Yet I never lost a man or a ship. The owners have ordered it, and I suppose I'll have to put up with their newfangled machines. But I'll be hanged if I'll have an infant in arms to work 'em. That's flat. I'll tell those Marconi people what's what." And he bustled angrily off to the telephone in the office at the shoreward end of the pier shed.

Meantime Roy stood in the captain's cabin, disheartened and disconsolate. No wonder he felt downhearted. The man he must please had taken a dislike to him at the very outset. He did not know what to do, so he did nothing. With a heart like lead he waited for the return of Captain Lansford. Presently that irate individual came storming back.

" Get up to the wireless house," he said roughly. " I've got to keep you for three months until a new class is ready. But I don't need any wireless to run *my* ship by, so don't you come bothering me. Good-day, sir."

" Good-day, sir," echoed Roy, but the echo was very faint indeed. Disconsolately he stepped from the captain's cabin, found his way to the wireless house, and shut the door tight behind him. For the moment his courage was almost gone. Sick at heart, he sat down to think over the situation.

CHAPTER II

THE SECRET OF SUCCESS

"IT'S the same old story," muttered Roy to himself, after a time. "I wonder if they will ever stop saying 'You're only a boy.' That's what they said at Camp Brady. Yet the wireless patrol ran down the dynamiters when the state police couldn't find them. That's what they said here in New York when we were searching for the secret wireless. Yet we found it, even if we were boys. That's what Captain Lansford says now. Shall I ever be old enough to escape it?"

Yet it was fortunate for Roy that he *was* but nineteen. At nineteen one possesses the resiliency of youth. One rebounds like a rubber ball. It was so with Roy. A while longer he sat, his head buried in his hands, his heart full of woe. Hardly could he keep the tears back. Then the buoyancy of youth asserted itself.

"Only a boy," he said presently, straightening up. "Isn't there anybody in the world who

knows that sometimes boys have brains and courage and common sense? What was David but a boy when he fought Goliath? What was General Grant but a boy when he loaded the logs alone? Who fought the Civil War but boys? I don't care if I am a boy. I can read and send wireless messages with the best of them, and there's nothing conceited in my saying so, for it's a fact. Only a boy, eh? All right, I'll show them what a boy can do. Maybe that captain *can* run his ship without the help of wireless, but I'll bet that after he's had the wireless service for ——"

Roy broke off suddenly and his face became very serious. "I almost forgot," he said to himself soberly, "that I have only three months to serve on this ship. Just as soon as the next class is graduated from the Marconi Institute, I'll lose my job."

Roy's face was very long indeed. "Maybe I'll never get another place," he said. "If I can't make good on this ship, how can I ever get a job on another boat?"

For a while Roy sat in deep thought. Then a wan smile flitted across his face. "You're doing just what Captain Hardy warned you not to do," he muttered to himself. "You're brooding over trouble. If Captain Hardy were here, he'd

tell you to get busy and make good before you lose your job. That's what he would say. Well, I don't know just what to do, but I'll make a beginning anyway. And that'll be to get into my uniform."

Roy jumped to his feet, opened his case, and took out his shining new uniform. Rapidly he put off his old suit and donned the new. A mirror hung at one end of his room. In this Roy surveyed himself with unqualified satisfaction. The trim, blue uniform fitted him snugly, emphasizing the fact that he possessed unusually broad, square shoulders and a slim waist. He stood up before the glass as straight as a young pine. Any one with half an eye for physique could have told that he was unusually powerful for a boy of his age and that he gave promise of being a man of great strength. His quick turns, as he surveyed himself, first on one side and then on the other, gave ample evidence of his agility. Could Captain Lansford, who admired physical prowess above almost every other quality, have seen Roy now, he might have formed a more favorable opinion of his new wireless man.

The Scriptures tell us that as a man thinketh in his heart, so is he. The truth of that saying was illustrated now in Roy's case. The pride of his new position and his new uniform filled his

soul. Gone was the stoop in his shoulders. The expression of gloom had disappeared from his countenance. In its place appeared the old look of cheerful confidence and determination. Straightway Roy began to look about him.

The glow of satisfaction on his face deepened. His little house, perched on the topmost deck like an eagle's aerie, was snug and comfortable beyond anticipation. To Roy it seemed almost palatial. The portion that was partitioned off for his sleeping quarters contained his bunk, a commodious closet, the fine mirror before which he now stood, and all the other accommodations that would be found in a first-class stateroom. The woodwork was beautifully finished. Generous coils of steam-pipes gave promise of abundant warmth even when the fiercest winter storms were blowing. Convenient electric fixtures were provided for lighting. Altogether his quarters were so snug and inviting that Roy momentarily forgot his troubles.

When he had ended his survey of his little sleeping room and stepped into the wireless room proper, his heart fairly leaped with joy. On one side of the little cabin was the operating table, with its array of shining instruments. A leather-covered couch stood along the opposite wall. There was a small rack for signal and code books,

stationery, etc., and a chair or two. But Roy gave scant attention to the furnishings. He had eyes only for the beautiful, glittering instruments on the operating table. The wireless outfit was complete. It included every necessary instrument, and each was of the finest type, with the latest improvements. Exultantly Roy fingered one after another. Never had he dared hope to have such an outfit as was now his. Of course it was not literally his, but nevertheless Roy felt all the joy of ownership. For three months, at least, it would be his. No one else might touch those shining instruments. Not even the captain, Roy fondly believed, would dare to molest them. Like Alexander Selkirk, Roy was monarch of all he surveyed.

But the mere handling of his instruments would never satisfy a boy like Roy. He sat down at the table and eagerly clamped the receivers to his ears. Skilfully he tuned his instrument, now to this wave-length, now to that. Clear as bells on a frosty morning came the voices in the air, and Roy's eyes sparkled as he listened in.

By this time he had forgotten all about his rebuff by Captain Lansford. He was himself again, alert, quick, curious as to all about him, intently interested in every new phase of life. And life aboard ship was distinctly new to Roy. The

voices in the air he had listened to a thousand times. To him they were an old story. But a great, ocean-line steamship was still a delightful mystery to Roy. He wanted to know more about it.

Laying his receivers on the table, he sprang to his feet, put on his new cap, with its gold braid and its letters wrought in gold, and left the cozy little wireless house. Hardly had he reached the ladder when his eye was caught by the activities on the pier. Though Roy had spent many weeks in New York, he had had small opportunity to see the shipping close at hand. So the scene on the pier below was as novel to Roy as though he had never been near a seaport.

Streaming in and out of the steamer's hold was a double line of stevedores, each pushing before him a strong barrel truck. Those entering were trundling great boxes or bales. Those emerging pushed only their empty trucks. Boxes, bales, packages and parcels of every conceivable size and shape followed one another into the hold in endless procession, while as endlessly stevedores came empty-handed out of the ship. The steady procession of freight handlers reminded Roy of a double line of ants, some laden, others with nothing to carry. Many a time Roy had watched ants bearing spoils to their nests.

Often he had marveled at their strength, as they dragged along objects greater in size than themselves. But never had he marveled at the ants as he now wondered at these brawny stevedores. Enormous boxes, twice or thrice their own bulk, and weighing, Roy felt sure, several hundred pounds apiece, they handled like so many bags of feathers, trundling them swiftly over the uneven plank flooring of the pier, shooting down the gangplank with them, often to the apparent imminent peril of their fellows. Yet never a collision occurred, and never a crate was spilled or upset.

When Roy grew tired of watching the freight handlers, he turned away from the ship's rail and descended to the pier. For the first time in his life he had a really good look at the inside of a great pier shed. Jutting straight out from the shore, the long, narrow pier, built on pilings and tightly roofed over and walled in, extended an unbelievable distance into the river. With quick appreciation of its real length, Roy saw that one could run a hundred yards straightaway on the pier without covering half its length. In width it might have been seventy-five to one hundred feet. This great warehouse—for in effect it was that—was piled high with mountainous heaps of freight, and a seemingly endless procession of

drays and motor-trucks was constantly adding to the store. From these huge piles the stevedores were bringing the freight they were rushing into the hold of the *Lycoming*.

It was a stirring sight to see the trucks constantly arriving and departing, some piles of freight growing bigger and bigger with every incoming load, while others as constantly dwindled in size. The former piles, Roy soon found, were accumulating for other ships, while the decreasing stacks had been brought on previous days for the *Lycoming*.

Roy gained thus his first inkling of what was meant by the term commerce. Never before had he seen such huge stacks of goods assembled in one place. It seemed to Roy as though all the wares of all the merchants in Central City would hardly make so great a pile if boxed and stacked together. Yet all these materials were sufficient only to fill two or three steamships of moderate size. When Roy thought of the miles and miles of piers along New York's water-front, and realized that each pier probably contained fully as many manufactured products as the *Lycoming's* pier, it seemed beyond belief. Then he thought of the labor necessary to handle all these mountains of goods. On his own pier dozens of men were at work. Motor-trucks and horse-

drawn drays came and went ceaselessly, hour after hour. It was awesome to think about.

"And this," said Roy to himself, " is only one of scores and scores of piers. And New York is only one of America's seaports. Then there are all the railway stations and freight depots. My goodness! Think how many hands it must take to move all the stuff——"

Roy stopped in sheer inability to comprehend the vista of American industry he had opened for himself.

" Well," he muttered after a time, " I see one thing. The whole country is united in a great business. If any part of that business stops it affects all the rest. Suppose all the boats along this river couldn't make their trips on time. The piers would fill up so they would hold no more. That would throw the truckmen out of work. Shipments from the mills would have to stop. Railroad crews would lose their jobs and the mills would shut down. That would be an awful calamity."

The idea was so appalling that Roy paused to ponder over it. "I see one thing clearly enough," he said to himself at last. " Everybody everywhere has to do his part if the whole business is to run right. Our job is to sail the *Lycoming* safely and right on the minute. Maybe I won't

be with her long, but as long as I am with her I'm going to do my best to keep her safe and right on the dot. That's my job all right."

It was. And if Roy had been a bit older, he would have known that it was exactly the way to make good with Captain Lansford in particular and the world in general. Without realizing it, Roy had set forth the fundamental rule of success—to do with your might what your hands find to do.

When Roy had tired of watching the toiling stevedores, he strolled up the pier and out to the street.

CHAPTER III

ROY'S FIRST FIRE

SO engrossed in the life about him was Roy that for the moment he forgot all about his troubles. On the street he encountered again the multitudinous traffic that had so depressed him upon his arrival in the city. But here it seemed to go at a slower pace. There were more heavily laden drays and fewer rushing motor-cars. Somehow the atmosphere of the " farm," with its hard toiling drivers and signs of honest industry seemed different from the cold and callous air of Seventh Avenue and of Broadway. At any rate, Roy felt different.

Probably that was because he had made the plunge. Even if his captain was not what Roy had hoped and expected, the ordeal of meeting him was over. Furthermore, Roy was now on his mettle. Unconsciously he was reacting from the captain's contemptuous attitude. Like any lad of spirit, his pride was hurt and his sense of justice outraged. His captain had condemned him without trial. Roy was determined to prove

that he merited his commander's fullest confidence rather than his contempt.

So now he walked along, holding himself proudly erect in his new uniform, his head up, his heart singing. In fact it could not have been otherwise; for, trouble or no trouble, he had at last reached the place every boy of spirits longs for: he had a job. He had made a start in real life.

The pier of the Confederated Steamship Lines was not far from the foot of Manhattan Island. Instinctively Roy turned his footsteps southward toward the Battery, that little strip of green that fronts the upper bay and that tips the end of the island like the cap on a shoe. Often during the search for the secret wireless, Roy had passed through this tiny park on his way to the Staten Island ferry, just to one side. But he had never really had time to look about. He decided that now he would explore a bit. Like any other wide-awake lad, Roy wanted to see and know all that he possibly could.

"I'll look about the lower end of the island," said Roy to himself. "Maybe I'll find something of interest."

Roy was right, but he had small notion of how much he would find that was interesting. The park was not unlike a half moon in shape. Paved

walks, lined with benches, led hither and thither between the stretches of greensward, and trees and bushes beautified and shaded the grounds. A lively breeze was coming off the water, and this was grateful: for the day was a hot one in late June.

Roy made his way directly through the little park to the water-front. A low sea-wall, built of great blocks of granite, formed the very end of the island. Along this sea-wall ran a wide promenade of asphalt, with benches on the landward side. The sweeping wind was churning the bay into whitecaps, and these came slap! slap! against the sea-wall, throwing showers of water high into the air and drenching the promenade. Even the benches on the landward side of the broad walk were soaked by the driving spray.

But the thing that took Roy's eye was the harbor. Six miles away, as the crow flies, rose the hills of Staten Island, where he and his fellows had watched so long for the German spies. Far to the right were the low shores of New Jersey, almost hidden in the smoke pall of the cities there bordering the bay. In that direction, too, loomed the Goddess of Liberty, symbol of all that the word America means to the world—the gigantic goddess whose high-held torch, flaming through the midnight darkness, shows the

anxious mariner his way through the murky waters of the harbor. To the left were the shores of Brooklyn and the cliffs of Bay Ridge. While near at hand and almost in front of the little park lay Governor's Island, with its antiquated stone fort, its barracks, and all the other buildings necessary in a military post. For Governor's Island is the army headquarters for the Department of the East.

The miles of water, now tossing turbulently and capped with white, were alive with shipping. One of the great municipal ferry-boats, starting for St. George, was tossing the spray to right and left as she breasted the waves. Tugs, seemingly without number, were puffing and bustling about, mostly with great barges or lighters on either side of them, like men carrying huge boxes under each arm. Some of these barges were car floats, with strings of freight-cars on their decks. Some were huge, enclosed lighters, built like dry-goods boxes, and towering so high in air as fairly to hide the tugs that were propelling them. A string of twenty barges, like a twenty-horse team, with ten couples, two abreast and drawn by twin tugs far ahead of them, was coming down the Hudson. Heavily laden freighters of one sort or another were riding deep in the swelling waves. One or two sailing vessels, beating their

way across the harbor, were heeling far over under the sharp wind. A motor-boat was scooting across the end of the island, and Roy even saw a venturesome Battery boatman riding the waves in a rowboat, at times standing out boldly on the crest of a wave and again almost lost to sight in the trough. But the sight that caught Roy's eye and thrilled his heart was an incoming ocean liner, her high decks crowded with a multitude of expectant folks. Many of those folks were men who had come to New York, like himself, to seek their fortunes. But they had come from far across the seas. They were strangers in a strange land. Roy wondered how they felt.

"If *those* fellows come here and succeed," smiled Roy to himself, as he watched the ship ride majestically by, "I'd be a poor pill if I couldn't make good, wouldn't I? Why, a lot of them can't speak English, and they've never even been to school. I'll make that captain of mine take back what he said."

Poor Roy! If he could have seen all the difficulties ahead of him, he would not have smiled so confidently. But he could not, and presently he turned away from the harbor, still lighthearted, to see what further things of interest he could discover.

At that instant a bell clanged. Close at hand,

and directly on the water-front, Roy had noticed a low structure with a little tower. But he had been so engrossed with the stirring spectacle of the harbor craft that he had paid scant attention to the building or the narrow, low craft moored to the pier in front of the building. He judged that this bell, which was still striking sharply, must be in this building. Curious to know what the bell signified, Roy turned sharply about. He was just in time to see a number of men in dark blue uniforms rush from the building, race across the narrow wharf, and leap into the little boat. The hawsers were cast off and in a second's time the little craft was shooting swiftly from her pier.

"I never saw anything like that before," said Roy to himself. "I wonder what that can be."

He ran over to the little house, and on its front were the words "Fire Department—City of New York."

"By George!" muttered Roy. "Those fellows are firemen and that is one of those fire-boats I've read about."

He ran around to the seaward side of the building and took a good look at the little steamer that was plunging through the waves at a rapid rate. She was long, low, narrow, and decked over in the centre somewhat like a low lighter. She re-

sembled a tug more than anything else, yet she was unlike any tug Roy had ever seen. Fore and aft and amidships, Roy saw long, glistening brass nozzles permanently mounted on the superstructure and he knew that the boat's engines would suck up the harbor water and shoot it through these nozzles with terrific force.

How he wished he could be aboard of her. How he would like to help fight the fire. He wondered where it could be. The little boat was heading straight for the Brooklyn shore. There Roy saw smoke rolling upward in great clouds from a pier shed. The distance was so great that Roy could not see distinctly, but he was sure that tugs were trying to pull a great steamship from her berth beside the burning pier. Even as he watched, flames burst from the shed. They swept outward in great sheets as they were fanned by the draughts within the shed. To Roy it seemed as though the flames were fairly licking the helpless liner.

"Will they get her away in time?" Roy asked himself, and his heart almost stood still as he watched the struggle. It seemed to him that the great ship was moving, but he could not be sure. Intently he watched. After a few minutes he was certain that the distance between the pier and the ship was growing greater. But it was

still so small that the flames blew about the boat like clouds of fire, and Roy knew that blazing embers must be fairly raining on the ship's decks.

So fascinated was he by the struggle that he completely forgot the little fire-boat until suddenly it shot into his field of vision. It steamed directly between the endangered ship, from which Roy could now see puffs of smoke arising, and the blazing pier. In another instant Roy saw great columns of water shoot from the fire-boat's nozzles and fall in drenching torrents on the helpless liner. Gradually the tugs pushed the huge craft farther and farther from the shore. The fire-boat stood alongside and hurled thousands of gallons of water over her, until the last vestige of smoke disappeared from the big ship. Then the fire-boat steamed close to the pier, which was now a roaring bonfire, and played its streams steadily into the flames.

Roy heaved a sigh of relief. "They saved her," he said to himself. "They saved her. But suppose there had been no fire-boat. The land engines couldn't have helped her a bit. She'd have burned to the water's edge. That would have been terrible."

It came to Roy that a fire at sea was a million times worse than a conflagration like the one he

was watching. "Those people over there," he muttered, as he looked at the rescued ship, "could have gotten away even if the ship had burned. The tugs would have taken them off. But if a ship ever got afire on the ocean the people aboard wouldn't have one chance in a thousand."

Suddenly a great light leaped into his eyes. "Yes, they would," he corrected himself. "And that chance would be the wireless. It could bring help to a ship at sea just as surely as that fire gong brought the fire-boat."

On his face came a look of deepest determination. "If ever anything like that happens on the *Lycoming*," he muttered.

But the sentence went unfinished. Again the gong in the fire-house clanged its warning. It was another alarm. Hardly had it sounded before a whistle shrieked long and sharply at the western end of the Battery. Everywhere whistles were tooting, as vessels exchanged signals with one another in the crowded harbor; but this whistle was so insistent, so unlike the tooting signals all about him, that Roy turned to discover what could have made it. He was just in time to see a little steamer poke her nose out from behind the pier at the western end of the promenade. Sharply the craft turned eastward and in another moment was speeding past Roy al-

most in the path the fire-boat had taken. The boat was a small, shapely craft that looked more like a private yacht than anything else. What instantly caught Roy's eye were the wireless antennæ strung above the boat.

Roy's eyes sparkled. "That's the police boat *Patrol,*" he thought. "She's going to the fire." And his mind went back to the night when he and his companions had raced up the East River on that same little craft in their search for the secret wireless.

For a long time Roy stood looking at the little police boat as she fought her way through the swirling current, but actually he saw nothing. He was lost in thought. Then a passer-by caught his attention. Scores of persons had gone by while Roy was watching the fire, yet he had paid no heed to any of them. But the instant his eye rested on this man Roy felt attracted to him.

The stranger was somewhat stout and his face was tanned a deep brown, as though he had been exposed to wind and weather. He wore a well-fitting suit of yachting flannels and a yachting cap of blue was set rather rakishly on his head. Roy instantly decided that the stranger must be a seafaring man. But what attracted Roy to the man was the latter's jolly, friendly expression. He fairly exuded good nature. Roy felt that he

would like to know the man. The stranger, however, hardly noticed Roy, but walked rapidly along the promenade, with a step that was wonderfully light and quick for a man of his build. Roy knew that it was impolite to stare at people, but he was so drawn to this passer-by that he couldn't resist the temptation to turn around and watch him. In another second he was glad he had done so.

A great wave crashed against the sea-wall and showered both Roy and the stranger with spray. Roy was annoyed at getting his new uniform wet. The stranger only laughed, though he was far wetter than Roy. From a side pocket of his coat he drew a white handkerchief and wiped the spray from his face. With the handkerchief he pulled out a letter. He did not notice it, and in a second the wind whirled it away through the park.

" Wait a minute," shouted Roy. " You lost a letter." And he dashed across the green after the flying envelope. His voice was drowned in the babel of sounds and the stranger went on his way unheeding.

Roy pursued the elusive paper almost to Broadway before he managed to clutch it. Then he turned and dashed back across the park. The stranger had disappeared, but Roy knew that he could single the man out because of his white

clothes. So he ran on down the promenade in the direction the stranger had taken. But he could find him nowhere. Roy reached the western end of the promenade and looked up West Street. The man was nowhere in sight.

"He couldn't have gone much farther than this," reasoned Roy. "Probably he has gone into some building. He might have gone into the harbor police station. I'll look there for him." And Roy turned toward the building on the pier from beside which the *Patrol* had emerged.

He pushed open the door and entered the Harbor A Station. A lieutenant of police sat behind a big desk and on the floor before him was the man Roy was searching for. But the man's expression had changed greatly. He looked troubled and worried.

"I beg your pardon," said Roy, stepping toward the stranger, "but this letter belongs to you. It came out of your pocket when you pulled your handkerchief out and the wind blew it away. I shouted at you to wait, but I suppose you didn't hear me. I had to chase it nearly to Broadway and when I got back you had gone. I'm glad I found you."

"By George, youngster!" said the man, grasping the letter eagerly. "You aren't half as glad

as I am. That's a mighty important letter. I discovered when I replaced my handkerchief that it was missing, and I stepped in here to report the loss. I thought I had been robbed."

He looked the letter over critically to make sure it was all right. "You've done me a mighty good turn, youngster," he said. "What do I owe you?"

Roy drew back, frowning. "Nothing, sir," he said. "I didn't chase your letter for money."

The man looked sharply at Roy. "Then what did you do it for?" he demanded.

Roy was rather nonplused. "Why, why—there wasn't anything else to do," he stammered. "You lost your letter; nobody else saw you lose it; and so there wasn't anything else to do."

The stranger laughed uproariously. Roy felt almost hurt. His face must have betrayed the fact, for suddenly the stranger checked his laugh. "You're a fine lad," he said. "A fine lad. And it's plain as the Woolworth Building that you don't belong in this town."

Roy was astonished. "I don't," he assented, "but how did you know it?"

Again the man burst into laughter. "Listen to that, Lieutenant," he chuckled. "Listen to that."

Then, turning to Roy, he said, "Where do you

come from, lad? I see by your uniform that you're a wireless man."

Roy glowed with pride. "My home is in Pennsylvania," he replied. "I'm the wireless man on the Confederated liner *Lycoming*."

"The deuce you are!" said the man. "The deuce you are!" And his eyes fairly danced. Then he added, with a chuckle, "Have you met Captain Lansford yet?"

Roy's sober expression was answer enough for the stranger. He burst into another hearty laugh. Then he said, "See here, lad. Don't you pay any attention to Captain Lansford. His bark is worse than his bite. You do your duty and you'll make good with him."

"Do you know him?" asked Roy incredulously.

"I should say I do," rejoined the stranger. "But I must be on my way. I've got a lot to do."

He thanked Roy again for his kindness and turned away. But immediately he faced about. "Know anybody in this town?" he asked, then added with a chuckle, "that is, anybody but Captain Lansford?"

"Hardly anybody," said Roy.

"I thought so," said the stranger. "What are you doing with yourself?"

"I thought I might find something interesting down here," said Roy. "I want to see everything I can while I have the opportunity."

"Good boy," said the stranger. "That's the way to get ahead. You've come to the right place to see things, too. Why, lad, this is one of the most interesting places in all America. Yes, and in all the world—this neighborhood right here. I could talk to you about it for hours, but I haven't time now. Go get yourself a guide-book and go over the place thoroughly. You'll never be sorry. If you can't find one, I'll lend you mine. Good-bye."

"But I may never see you again," said Roy.

The man chuckled. "Oh! yes you will," he smiled. "I'm going to look you up on the *Lycoming*. Good-bye." He held out his hand, grasped Roy's so firmly that he made Roy wince, and was off.

Roy watched him disappear in the crowd. He felt as though a great weight had been lifted from his shoulders. He was no longer alone in a big city. He had a friend. At least, he believed the man was going to be his friend, and he was glad of it. But suddenly his face grew long again.

"I forgot to get his name," muttered Roy, "and I could have had it without asking. All I

needed to do was to read the address on the envelope. Now I may never see him again."

For a minute Roy felt gloomy enough. Then he recalled the man's promise to look him up on the *Lycoming*. " If he does," smiled Roy, " I'll bet a dollar I won't forget again to find out his name. Now I'm going to take his advice and get a guide-book. Wonder where I can find one."

A policeman was passing. Roy stopped him and asked where he could purchase the desired volume. The policeman directed him to a near-by book shop and in a few minutes Roy was back in Battery Park with a little guide-book in his hand.

CHAPTER IV

IN LOWER NEW YORK

"NOW," thought Roy, as he sought out a shady bench and sat down, "if this book will tell me, I'm going to find out why this park is called Battery Park. I've often wondered."

He opened his book and, turning to the index, readily found where to look for the information. Looking on the proper page, he read: "Battery Park and Battery Place take their name from the fortification begun in 1693 by Governor Fletcher to defend the city. The original battery was a line of cannons extending from the foot of Greenwich Street to the intersection of Whitehall and Water Streets."

"That was a pretty nice row of cannons," thought Roy, glancing up from his book to see about where these guns had stood. With the geography of the city he was quite familiar, as it had been necessary, during the search for the secret wireless, for Roy and his companions to acquaint themselves with the city in order that they could travel surely and speedily. After he had

measured the distance with his eye, he turned back to the guide-book and read: "The land beyond this line was under water until after 1800."

At first Roy did not grasp the significance of the statement. But when he read that the original shore-line of the lower end of Manhattan Island is marked approximately by Greenwich, State, and Pearl Streets, he was almost stunned.

"Why, gee whiz!" he muttered. "That means that all this park, which the book says contains twenty-one acres, and all the ground on either side of the lower end of the island for two or three blocks inland is made land. Just think of that." In amazement he stared about the little park, then looked at the two broad blocks between Greenwich Street and "the farm." "Made land," he thought, "every inch of it. Why, they must have made hundreds of acres. I wonder where they got all the stuff to fill in with. What a lot of work it must have been! And what a pile of money it must have cost. But I suppose it's worth millions and millions of dollars now."

He picked up his guide-book again. "The land under water," he read, "was ceded to Congress by the city for the erection of a fort to defend the city. The fort, about three hundred feet from shore, later called Castle Clinton, was

built on a mole and connected with the city by a bridge. In 1822 it was ceded to the state; in 1823 it was leased to the city, and in 1824 it was leased as an amusement hall, known as Castle Garden. It was roofed over and was the scene of Lafayette's reception in 1824. In 1835 Samuel F. B. Morse here first demonstrated the possibility of controlling an electric current. Here Jenny Lind sang in 1850, and in 1851 Kossuth was received here. In 1855 it became the Immigration Bureau. In 1891 Battery Park was filled in, and in 1896 the building was opened as an aquarium."

"Gee whiz!" smiled Roy happily. "I've often heard of the aquarium. It contains one of the most famous collections of fishes in the world. But I never dreamed that it was such a famous old place as that. I'm going to see that, sure. It must be that queer, circular brownstone building near the harbor police station."

Roy's guess proved to be correct, as the sign above the entrance told him. But before entering he walked completely around the structure.

"Makes you think of a stone bandbox," said Roy, with a chuckle. "It's so much like that funny building on Governor's Island that they look like twins. I'll bet that was another fort."

Roy was right again. His guide-book said

that the old fort on Governor's Island was known as Castle William.

In walking around the aquarium Roy discovered at intervals what looked like window spaces that had been walled in. But he knew that they must have been the embrasures for the thirty heavy guns with which the fort was armed.

When he had completed the circuit of the building, Roy went inside. In the centre of the floor was a tiled tank, like the hub of a wheel, while strung around the wall, like the tire of the wheel, were tanks and tanks of fishes, so arranged that the light shone through the tanks, perfectly illuminating everything in them.

Roy went directly to the circular tank in the centre. It contained a great sea-cow or manatee. Often Roy had read of these curious creatures and he knew at once what the thing was. It was as big as a fat pig and had a broad oval tail, with fore limbs in the form of flippers. The animal reminded Roy of the performing seals he had seen at a circus. He had read that at night the manatee is said to come out of the water. He wondered if it were true. He was particularly interested in this fish for he knew that it lived in the southern waters he would soon be sailing. He hoped that he would see some of them in the sea.

In the tank with the manatee were some flounders. Roy was amazed to note that they were almost white, like the sand in the bottom of the tank. He had often seen flounders, but never any of that color. It puzzled him until he remembered that the flounder, like many another creature, possesses the power of protective coloring. Roy wondered how it was possible for any creature to change its color to match its environment. But, like many a wiser person, he pondered over the matter in vain.

When he had grown tired of watching the sea-cow and the white flounders, he walked over to the ring of tanks, and, beginning at one side of the entrance, walked slowly around the building. Never had Roy dreamed that there could be such fishes as he now beheld. Not only did he find the familiar fishes of our own waters that he had caught or seen for sale in the markets, but also he saw strange and curious creatures from every part of the world. What astonished him most was the vivid coloring of some of the fishes from the tropics. Roy had often seen parrots and other tropic birds, and he knew that the birds in these hot regions were more brilliant in hue than our own birds. But he had never dreamed that the fishes would likewise be gaily colored. Yet here he beheld fishes of red and green and blue

and yellow, as brilliant in color as any parrot or parrakeet he had ever seen.

When he had become tired of looking at fishes, Roy left the aquarium and again sought a shady seat. As he opened his book his glance rested on the words " Fort Amsterdam."

" I wonder how many forts those old fellows had, anyway," thought Roy. " I'll just see what it says about Fort Amsterdam," and he began to read: " Before the first great fire visited Manhattan in 1626, the lines of a fort were laid out, occupying the site of the present Custom House, the work being completed between 1633 and 1635. Fort Amsterdam, as the work was called, was built of earth and stone and had four bastions. It rose proudly above the group of small houses and became the distinctive feature of New Amsterdam. The main gate of the fort opened on the present Bowling Green, which from the earliest days was maintained as an open space. It was, in fact, the heart of the Dutch town. It provided a playground for the children, a site for the May-pole around which the youths and maidens danced, a parade-ground for the soldiers, and a place for the market and annual cattle show. Here also were held those great meetings with the Indians, at which treaties were arranged and the pipe of peace was smoked. In 1732 it

was leased to three citizens who lived close at hand, for one peppercorn a year, as a private bowling ground, from which fact it takes its name."

"Think of that," mused Roy. "They used to smoke the peace-pipe there. Now the place is surrounded by sky-scrapers, trolley-cars run past it, subway trains rumble underneath it, and elevated trains thunder by within a few feet. I wonder what those Indians would think if they could ever come back to earth and see Manhattan Island now." Roy chuckled at the idea, but when he thought of the Dutch cattle shows he laughed outright. "Wouldn't a herd of cattle tethered in Bowling Green create a sensation now?" he said to himself. "I must take a look at that place."

He jumped up and crossed the park, heading for the Custom-house at the eastern end. This was a huge building, some seven stories in height, that covered an entire block. Roy walked around it, pausing finally to admire the groups of beautiful statuary that adorned the front of the building. For a long time Roy gazed at the Custom-house, and the longer he looked the more beautiful he thought the building was.

He had often seen it on his previous visit, but he had been so preoccupied then that he had

given little thought to it or any other building. Though he had learned well the geography of the city, in order that he might get about with facility, he had learned nothing of the history or meaning of New York. Now that he was looking at things from a new point of view, it seemed as though he had never seen them before. It was so with Bowling Green. Often he had passed the little fenced-in oval of grass, with its few benches and a tree or two, but it had been to him only a tiny bit of green. It had held no meaning. Now in fancy he saw the old fort with its little parade-ground, its gates open, and the Dutch soldiers marching out to drill. He pictured the boys and girls frolicking about the May-pole. And when he thought of the cattle shows, he laughed again.

Roy went into the tiny oval and sat down on a bench to think this all over. "It was almost three hundred years ago," he mused, "when they built that old fort. That's a long time. It's so long that I suppose there isn't a thing left that was standing in those days. That's funny, too, for I've read that in England there are buildings hundreds and hundreds of years old. I wonder what's the oldest thing here."

Roy looked about but could find nothing that he thought seemed very old. "That's the queer

thing about New York," was his comment. "There never has been much in it that is old. They keep tearing things down and building new things in their places all the time. No wonder they say that New York will never be finished. There isn't anything old here."

But Roy was mistaken, and when he fell to reading in his guide-book again he discovered it. For the fence that surrounded the little oval was almost a century and a half old. "This fence," Roy read, "was imported from England in 1771 to enclose a lead equestrian statue of George III. On the posts were the royal insignia. In 1776, during the Revolution, the lead statue was dragged down and moulded into bullets by the colonists, and the royal insignia were knocked from the tops of the posts. The fractures can still be seen."

Roy jumped up and ran over to the fence. Sure enough, each post showed plainly that its top had been broken off. Roy was amazed.

"To think that this fence was standing at the time of the Revolution," he thought. "Why, Washington must have been here often and he probably looked at these broken posts just as I have."

Doubtless Washington did see the posts. Certainly he must have been in the Bowling Green

many a time. Only a short distance from the Bowling Green, in Fraunces Tavern, at Broad and Pearl Streets, Washington said farewell to forty-four of his officers at the close of the Revolution, a fact that Roy soon discovered from his guide-book. Immediately he hurried away to take a look at this beautiful old building of colonial design, made of yellow Dutch bricks. Roy admired it very much. A bronze tablet on the corner of the building stated that it was now the property of the Sons of the Revolution.

"Good!" thought Roy. "Now I know of two things in New York that haven't been torn down. And I don't believe they ever will be."

When Roy looked further in his book he found there were many, many old things remaining, so many that he could not hope to see them in one day, and particularly not on this day, for it was already supper time. But there was one place that Roy was eager to see. The guide-book said that a tablet on the building at 41 Broadway marked the site of the first houses or huts erected on Manhattan Island by white men. They were built about 1613.

"I'll just walk up Broadway," thought Roy, "and see that tablet. Then I'll go on up Broad-

way, get something to eat, and go back to the *Lycoming* after supper. I suppose I could get a meal aboard the *Lycoming,* but likely I'd have to eat with Captain Lansford."

Roy walked slowly up the longest street in the world; for Broadway, extending far beyond the limits of New York City, and passing through one community after another, is still Broadway half a hundred miles from Bowling Green. He could hardly have gone otherwise than slowly if he had tried, for it was the evening rush hour. From every doorway people were pouring out into the street. The sidewalks were jammed. The roadway was so crowded with busses and trucks and drays and trolley-cars and automobiles that it was next to impossible to cross it. Bells were clanging, automobile horns honking, whistles blowing. Iron-shod hoofs rang on the pavements. Leather shoes scraped and shuffled on the stone sidewalks. And all these noises combined in one ceaseless roar that beat on the ear incessantly. But what most impressed Roy was the unceasing rush of people. Apparently there was no end to them. Doorways of high buildings fairly vomited human beings. But no matter how many persons issued forth, more remained to come out. Time and time again Roy had seen this evening rush for home, and always

he was impressed by it. It seemed impossible that there could be so many workers in the city. But when he remembered that some of the tall buildings about him held as many as ten thousand persons,—almost as many people as there were in the whole town of Central City—the rush did not seem so incomprehensible. Every time Roy looked at the crowd he thought of the ceaseless flow of a rushing stream.

Roy paused when he reached 41 Broadway and read the tablet on the wall. But he passed on quickly, for the crowded sidewalk was a poor place to loiter, and the tumult of traffic drove from his head all thoughts of those sleepy old days when New York was New Amsterdam.

Roy was now in the very heart of that deep canyon formed by the huge buildings in lower Broadway. He knew that nowhere else in the world could one find structures like them. There they towered, ten, twenty, thirty, forty stories high, until it made one almost dizzy to look up at them. Like the traffic in the street, Roy had seen them often; but now, as always when he saw them near at hand, he marveled at these huge structures man had reared two and even three times as high as Niagara, while the gigantic Woolworth Building, more than four and a half times the height of Niagara, towered a full seven

hundred and fifty feet above the sidewalk. As Roy looked up Broadway at it now he could not help feeling awed.

"Just think," he muttered, "it's two hundred feet longer than the *Lycoming*."

Just then Roy came to a quick lunch room. His eye brightened as he caught sight of it, for he had had nothing to eat for several hours, and the salt breeze in the park had whetted an appetite already keen.

Roy entered and ate generously. He took his time about it. Now that he was relaxed, he found that he was really tired. When he came out of the restaurant he was amazed at the altered appearance of the street. The crowd had disappeared. Gone was the multitude of trucks, drays and motor-cars. A few belated pedestrians were hurrying along the street, and an occasional wagon rattled by. But now every hoof beat and every creak of wheel or wagon-body echoed through the deserted thoroughfare, flung back by the empty hives of buildings that had so recently swarmed with life. More than ever Roy thought of that rushing throng of humanity as a surging tide; but now it seemed as though a sluice-gate had somewhere been closed and only a few tiny trickles were seeping through.

But somehow the deserted thoroughfare

seemed almost more attractive to Roy than it did when it was seething with traffic. There was so much he wanted to think about, so many things on every hand that demanded consideration; and connected thought was almost impossible when so many persons were rushing by and such a confusing babel of sound smote on the ear. So now he sauntered slowly up Broadway, thinking about his own situation, and pondering over the interesting things he had seen.

One by one lights shone forth in the great structures about him—lights so high that they seemed like yellow stars in the sky. Slowly the outlines of the individual buildings grew dim and uncertain as darkness came on. In place of the hulking massive structures of stone he had been looking at by daylight, Roy now found himself gazing at what seemed like fairy towers of twinkling, elfin lights. It was wonderful beyond description. But when Roy looked at the Singer and Woolworth Buildings, with their beautiful towers of ornate stone rising hundreds of feet above him and brilliantly illuminated by hidden lights, he was sure that he had never in his life seen anything so beautiful and so wonderful. He could find no words to express his delight. But he was conscious that the feeling of awe which had gripped him as he stared at these same col-

ored shafts by day was gone. Now he felt only a sense of charm and delight.

He continued up Broadway until he came to the seething centre of life about City Hall. When he looked across the little park at the entrance of the Brooklyn bridge, and saw the bustling activity of Park Row, he could scarce believe that one short block could make so great a difference. Roy did not realize that Park Row was the heart of the night life of lower New York. Centred about it were the homes of many of New York's great newspapers, where scores of workers had just gone on duty and where the "day's work" was only fairly getting under way.

Roy made his way to the entrance of the Brooklyn bridge and watched in wonder the endless strings of trolley-cars swing round the terminal loops, the streams of pedestrians still pouring homeward toward Brooklyn, the line of carts still rattling up the cobbled roadway to the bridge. When he expressed his wonder to the bridge policeman at the information booth, that individual only smiled. For years he had watched the better part of a million people daily swarm to and fro across the bridge: and the tail-end of the evening rush, that seemed so impressive to Roy, was commonplace enough to him.

After a time the scene palled on Roy, and he started for home—his new home on the *Lycoming*. Knowing well the city's geography, he did not retrace his steps but struck off directly for the western water-front, passing through a maze of deserted, dimly lighted, little streets that were flanked by dingy buildings of five or six stories. The contrast with the blazing centre of life he had just left was as striking as some sudden shift in scenes on the stage of a theatre. In the quiet and gloom Roy had abundant opportunity for thought. His mind returned to the problem immediately before him: how he should make good with Captain Lansford.

So engrossed in this problem did Roy become that he did not hear a stealthy footstep behind him, and was startled when a form appeared beside him, and a tough-looking fellow demanded a match.

"Sorry," said Roy, "but I have no matches with me."

"Then give me ten cents for beer," growled the fellow in a still rougher tone.

"I have no money to give you," said Roy firmly.

"You haven't, eh?" sneered the fellow. "Then I'll just take it."

He grasped Roy's shoulder, but Roy wrenched

loose from him and drew back. Quick as a flash the ruffian shot his fist at Roy's face. Taken unawares, Roy could not dodge the blow, and it landed full on his left eye. For an instant he was almost stunned and he could see nothing. Instinctively he drew back and raised his fists to protect himself. Roy knew that he was no match for this hulking fellow, who was almost as large as Captain Lansford, but he meant to fight to the limit to save the few dollars he possessed. Roy believed that the best defense was an offensive, and though he could hardly see the man before him, he rushed at him and struck out with all his might. The fellow was as much surprised as Roy had been an instant before and the blow struck him squarely on the chin. He had been coming toward Roy and the impact was terrific. It bent his head straight back and the fellow dropped to his knees. Roy should have finished him with another blow, but he could not hit a man who was down, even though the man had attempted to rob him. He stepped past the man and walked rapidly toward the water-front, frequently glancing over his shoulder lest he be pursued. But the surprised robber had had enough. When he was able to get to his feet he slunk quickly out of sight.

"I got out of that pretty lucky," thought Roy.

"I'd rather have a black eye any time than lose my money."

But Roy almost changed his mind when he reached the ship, for the first person he met was Captain Lansford. By this time Roy's eye was both swollen and discolored, and his face was flushed with excitement. As luck would have it, he met the captain in the full glare of a bright light.

"So you've been drinking, eh?" roared the captain. "Don't you know that drinking is forbidden on this ship?"

"I haven't been drinking, sir," said Roy. "Some one ——"

Captain Lansford cut him short. "Don't make it worse by lying about it," he said harshly.

Roy's flushed face grew redder still with indignation. "You have no right to say that," he declared hotly.

"Do you dare question my authority on my own ship?" thundered the irate commander.

"I don't care whether you are captain of this ship or President of the United States," said Roy boldly. "You shall not accuse me of either drinking or lying. I never touched a drop of liquor in my life and I am not a liar."

"If you haven't been drinking," demanded

Captain Lansford, "how did you get that black eye?"

"A man set on me and tried to rob me," replied Roy.

"And you were sober and you let him hit you in the eye? Bah!"

"He hit me when I wasn't expecting it," explained Roy.

"And what did you do? Run? Or hand him your money?"

"I knocked him down," said Roy grimly.

"It's likely," rejoined the captain. "Now go to your quarters and don't ever let me hear of your drinking again."

Anger flamed up in Roy's heart. "Don't you ever dare to accuse me of drinking again," he cried hotly, taking a step toward his superior and looking him straight in the eye.

"Go to your quarters," thundered the captain.

Roy turned and slowly mounted to the wireless house. At every step his heart grew heavier and heavier.

"A nice mess I've made of it," he sighed, when at last he reached the wireless house and threw himself down on his couch. "I'll never make good with the captain now, never."

CHAPTER V

A FRIEND IN NEED

IT was characteristic of Roy that he did not spend much time bewailing his misfortune. "If the captain objects to my looks now," thought he, "how will he feel to-morrow, when that black eye becomes the real thing! Gee! I've got to do something quick. Let me see. It ought to be bathed in warm water and rubbed with butter or some other kind of grease. I can get warm water here in my room, but I don't know where to get butter. Maybe the cook would give me some."

Roy jumped to his feet and started down the ladder. "Gee whiz!" he muttered. "I wonder where the cook is?" For the *Lycoming* was still a mystery to Roy.

He went down to a lower deck, then stood irresolute. Not a soul was in sight, the ship was dimly lighted, and Roy did not know which way to turn. Suddenly the door of the purser's office was flung open and a flood of yellow light

streamed out. Roy stepped quickly to the door and knocked against the jamb.

" Come in," said a hearty voice, which Roy was certain he had heard before.

Roy entered and found himself face to face with the man whose letter he had rescued. He was so surprised that for an instant he couldn't say a word.

" Hello, youngster," said the man, as he took a quick glance at Roy. " Glad to see you. Come in. Just let me finish this manifest and I'll talk to you all night." But when he took a second look at Roy, he dropped the sheaf of papers he was examining and stepped forward.

" Now how the deuce did you get that? " he exclaimed, as he examined Roy's eye.

As Roy started to tell him he interrupted, " Never mind how you got it. Let's get it fixed first and talk about it afterward. Come with me, youngster."

He darted out of his office and into his stateroom, with Roy close at his heels. Seemingly with one motion he set the hot water flowing in his wash-bowl and drew from a closet a bottle of vaseline. Almost before Roy knew what was happening, the man had him in a chair with a stinging hot compress over his eye, and another ready for application when the first one cooled.

The man's dexterity amazed Roy, who was anything but clumsy himself. When the compresses had done their work, the man began to rub the injured flesh about the bruised eye with vaseline. Round and round his fingers went, softly but firmly pressing the flesh, until Roy wondered if the man would ever stop. Finally the massage ended and a poultice was quickly made and deftly applied.

"There," said the man, stepping back and viewing his job critically. "You're fixed up as good as any ambulance surgeon could have fixed you. Now let's hear how you got that decoration."

"First, let me thank you for your help," said Roy gratefully. "I'll look bad enough as it is, but I'd have looked a thousand times worse if you hadn't helped me. I wouldn't care so much if the captain hadn't seen me."

"Did he, though? And what did he say?"

"He accused me of being drunk, and when I tried to explain how I came by a black eye, he told me not to make it worse by lying."

Roy's companion chuckled. "What did you tell him?" he demanded.

"I told him he had no right to accuse me of either. He nearly took my head off, and demanded to know if I questioned his authority on

his own ship. I told him I didn't care whether he was captain of the *Lycoming* or President of the United States, I was neither drunk nor a liar and that he had no right to accuse me of being either."

Roy's companion slapped his leg in huge delight. "Boy," he said, "you're made with Captain Lansford. You couldn't have done anything that would please him more. He loves courage and there are mighty few people who have enough of it to stand up to him."

Roy looked rueful. "He'll never forgive me," he said. "You should have heard him order me to my quarters."

But Roy's companion only chuckled. "Now tell me all about your eye," he said.

Roy told him how he came by it. Then he added, "I suppose you are the purser, and I'm mighty glad. I don't know how I can ever show my gratitude for your kindness, but I thank you with all my heart. My name is Roy Mercer."

"Thank you, lad. Thank you," said the purser. "It's always a pleasure to help a good boy like yourself. My name is Robbins, Frank Robbins, and I *am* the purser. I foresee that we shall be very good friends."

"I hope so," said Roy. "It won't be my fault if we aren't. Won't you come up and see my

wireless room? And, by the way, I've got some crullers my mother gave me. You must try them."

"God bless the lad!" ejaculated the purser. "Crullers—the kind that mother used to make—the real thing—and he wants to share them. To be sure, I'll come. But let me finish that manifest first. Work before play is the motto on this ship."

"I'd bet on that," thought Roy, "if Captain Lansford had anything to do with it."

The purser went to his office and Roy to the wireless house. But what a different lad he was from the Roy who had left it so short a time before. He had found a friend in need; and a friend in need is a friend indeed. Now his eyes were aglow and his heart beat merrily. He looked at his shining instruments as a mother views her child. Sitting down at the operating table, he adjusted his receivers to his head and threw over the switch.

A babel of sound smote his ears. It was after nine o'clock, and at that hour of the night the air in Manhattan was as noisy as Broadway during the rush hour. Everybody was talking at once, including no end of irresponsible amateurs, many of whom could send but not read. When they jammed, no one could tell them what trouble they

were making for everybody else. Roy could hear big stations and little talking to one another through hundreds of miles of space. Stations far to the northward were talking directly over Roy's head, as it were, with stations as far to the southward. Inland operators were conversing with shore stations, and ocean liners were exchanging messages with operators on land. It was as noisy as a five o'clock tea.

Though it was all familiar to Roy, it was as interesting to him as if he were hearing it for the first time. High above the multitude of buzzing sounds rose the shrill whine of the Brooklyn Navy Yard's rotary spark-gap. Always Roy delighted to listen to the clean, clear work of the Navy Yard operators. Now he tuned sharply and listened.

"NAK—NAK—NAK—NAH," called the navy operator. (Annapolis-Brooklyn Navy Yard calling.)

"NAH—III—GA," came the reply almost at once. (Navy Yard. I'm here. Go ahead.)

Roy made a wry face as he took down the message that followed. It was in cipher and he could not read it.

But there was plenty that he could read. The radio station on the Metropolitan tower was shrilly shouting its news to the world. The navy

station at Fire Island was talking with a destroyer at sea. Cape May was trying to get some ship far out in the Atlantic. The *New York Herald* was talking with a ship coming into Boston. Far out at sea the White Star liner *Majestic* was inquiring whether the Giants or Cincinnati had won the day's ball game. The Hotel Waldorf was sending a message for a guest to Philadelphia.

Suddenly Roy started violently. His own call was sounding through the air: "WNA—WNA—WNA—WNG."

It was the *Tioga* calling her sister ship *Lycoming*.

"WNG—III—GA," flashed back Roy the instant the call ended.

"Hello," came the answer. "This is Patterson. Who are you?"

"This is Mercer," answered Roy.

"Glad to know you," flashed back the operator on the *Tioga*. "Where you from?"

"This is my first job," said Roy.

"Well, you're right on the job and you send well."

"Thanks," answered Roy. "Come see me. When do you expect to get in?"

"Tuesday evening. Take a message for Lansford."

Roy took down the message and said good-night to Patterson. He made a grimace at the thought of again facing "the old dragon," as he mentally styled his superior. But before he could lay aside his receivers he heard Arlington preparing to send out the ten o'clock time signal and the day's weather news.

"I'll just take the weather-report," he thought, as he set his watch, "and give it to Captain Lansford along with this message."

Then the weather signals sounded. Rapidly Roy jotted them down: "USWB—T 02813—DB 04221—H 03622—C 03042—K 00223—P 03347." (Wind off Atlantic Coast—north of Sandy Hook moderate northerly winds with fair weather—Hatteras to Florida Straits moderate northerly and easterly winds. Moderate showers Tuesday east Gulf Coast. Fresh to moderately strong winds over north portion with rain—moderate northeast and east winds over south portion.)

Rapidly Roy deciphered the code and wrote down the despatch, as follows: Nantucket—barometer 30.28, wind north, gentle breeze. Delaware Breakwater—barometer 30.42, wind northeast, light air. Cape Hatteras—barometer 30.36, wind northeast, light breeze. Key West—barometer 30.02, wind northeast, gentle breeze.

Pensacola—barometer 30.33, wind southeast, moderate gale.

Carefully Roy wrote out the message from the *Tioga,* and signed it with the *Tioga* captain's name, making sure that every word was written plainly and spelled correctly. " I won't give him a chance to criticize me," he muttered.

Then, after a moment's consideration, he wrote: " The United States Weather Bureau reports the following weather conditions." And he copied down the deciphered message and signed his name: " Mercer."

It was the first time Roy had ever signed his name as a professional operator and he thrilled with pride as he looked at the neatly penned message with his own signature at the bottom.

But immediately the smile of satisfaction was succeeded by a sour look. At that instant his door opened and the purser walked in.

" Why so glum? " he demanded. " Worrying about your shiner? "

" No," said Roy. " I was thinking how much fun it will be to take this message to Captain Lansford."

" Now see here, lad," exploded the purser. " You're not going to take it. Don't forget you're not a cabin-boy, but remember that you rank with the officers. And, anyway, it will be

just as well to keep away from the captain for a time. He's used to having everybody kotow to him. Just show him you are independent. He won't think any the worse of you for it."

"Come to think of it," said Roy, "his orders were to go to the wireless house and not to bother him."

"Just push this button when you want a steward," said the purser, putting his finger on a push-button in the wall that Roy had not previously noticed.

In a few moments a gray-haired negro appeared at the door.

"Sam," said the purser, "this is Mr. Mercer, our new wireless man. He's a particular friend of mine and I want you to look after him as a favor to me. Besides, you want to gain his friendship yourself. You can never tell when you may need his help. He talks to other ships and to folks ashore, with these instruments here. If we get into trouble at sea he can summon help, even if we are five hundred miles out in the ocean."

The darky's eyes opened wide in astonishment. "I done heerd o' dis yere wireless telefagry, Massa Robbins," he said, "but I ain't never seen none before. Can he really call help like dat?"

" Indeed he can, Sam, and if we need a policeman, he can get one quick."

The steward looked at Roy with awe. Roy rose and shook hands with him. " I hope you are going to be my friend, Sam," he said cordially.

" 'Deed I is, Mr. Mercer. 'Deed I is, suh," and he bowed himself out with Roy's message for the captain.

Roy grinned at the purser. "Sounds funny to have him call me Mr. Mercer," he said. " I suppose he'll get over it when he knows me better."

" You'll never be anything but Mr. Mercer on shipboard," explained the purser. " As wireless man, you are entitled to be called Mr. Mercer, and we are particular about such things. But I'm going to call you Roy when we're alone, if you don't mind."

With a smile Roy laid aside his wireless instruments and produced his package of crullers.

" We must have something to drink with these," said the purser, and he pressed the button again.

Roy looked at him inquiringly.

" I never touch anything stronger than coffee," said the purser, " and if you take my advice, you won't, either."

" I never touched a drop of liquor in my life," said Roy, " and I'm not going to now."

"I thought not," said the purser. "That's one reason I mean to be your friend. Boys who drink aren't worth bothering with."

Presently Sam answered the bell and brought them a pot of steaming hot coffee. For a long time Roy and the purser sat talking; they ate crullers and drank coffee. When Mr. Robbins said good-night, Roy was very happy indeed. He felt that he had gained a real friend, who would help him in difficulty. And, though he did not know it, there were many difficulties ahead of him.

CHAPTER VI

OFF TO SEA

THANKS to the purser's kind and skilful ministrations, Roy's eye was not long in returning to an almost normal appearance. But Roy had little time to worry over his looks. As the time for sailing approached, he was busy day and night. There were a multitude of unusual details connected with the maiden voyage of the *Lycoming* that entailed endless messages. The ship's owners were continually sending important communications. Commanders of other Confederated liners sent congratulations to the *Lycoming's* commander. Shipping agents and commercial houses fairly bombarded Captain Lansford with wireless communications. Finally passengers began to arrive and messages were sent to and by them.

Even Roy, ignorant as he still was of matters nautical and commercial, could see that things were not going right. The ship still had to be coaled, and the coal barges were badly delayed in arriving. Certain big freight shipments, which

it was imperative for the *Lycoming* to carry, were held back by the congested condition of the railways. The first of these shipments began to arrive about the time the last should have been safely stowed in the hold. Captain Lansford was plainly disturbed. He grew sharper and sharper tempered. He drove the stevedores at an incredible pace. He made the coal-passers work at a speed past belief. But the thing that seemed to annoy him most was the continual stream of wireless messages. Every succeeding communication seemed to put a sharper edge to his temper. From the first officer down to the humblest coal-passer, every member of the crew was on the alert. At the least word from Captain Lansford they jumped to execute his command. Despite the innumerable delays and obstacles, it looked as though the ship would sail on time.

When Roy had said to himself that his job was to help keep the ship safe and on the dot, he meant it. By the terms of his employment he was required to be at his post at certain hours and to listen in at certain intervals. But Roy saw that already opportunity had come to him to be of real help to his captain. An hour's delay in some of the messages that were arriving, he quickly saw, would make a great deal of differ-

ence to Captain Lansford and the sailing of the ship. So Roy threw aside all idea of working during prescribed hours only and stuck to his post. Indeed, he hardly left the wireless house, even for meals. Sam, the steward, was as anxious to win Roy's good-will as Roy was to gain the captain's, and he saw to it that Roy did not lack good things to eat or drink. It was hard to be confined so closely. And when there was so much near at hand that he wanted to see, it took real courage to force himself to stay in the wireless house. But Roy put aside his desire for sightseeing, sent and received his messages promptly, and made sure that communications for Captain Lansford were always put into the commander's hands immediately. Especially was Roy particular to spell his words correctly, write them plainly, and get all his figures correct.

The purser had arranged to have a cabin-boy deliver the captain's messages, and Roy was glad enough that he did not have to face Captain Lansford. As for the latter, he gave no sign that he either understood or appreciated the service Roy was rendering him. On the contrary, he lost no opportunity to condemn the innovation that had been forced on him. The cabin-boy, who disliked the task assigned to him, repeated to Roy all the harsh things that Captain Lansford

said to him. But Roy only screwed his lips together a little tighter and stuck to his job. It was the only way he knew of to make good.

As the hour for sailing approached, the activities on the pier were past describing. Roy had thought the stevedores worked fast when he saw them. If he could have watched them now he would hardly have believed his eyes. Hour after hour, in unending streams they rushed down the gangplanks with their enormous loads. Drays came and went. Drivers swore frantically at their horses and at one another. Motors honked and roared. Boxes and bales crashed to the floor of the pier shed with resounding thumps. The little hand-trucks rattled incessantly over the uneven planking. Donkey-engines and steam-winches clanked and shrieked, and the derricks groaned and creaked as load after load was hoisted aboard. Every hand that could be employed in loading was working at top speed. The scene would have delighted Roy. But, like the coal-passers, the stevedores, the truckmen, the crew, and everybody else about the ship, he, too, was working at top speed. It seemed as though each one of the scores of men who were toiling about the ship was determined that the ship should sail on time, cost what it might. A very frenzy seemed to have taken possession of all

these toilers. Something had gotten into them, some spirit that made it seem more important to get the *Lycoming* off on time than to do anything else in the world. Like everybody else aboard, Roy was too busy to think about the thing or even to comprehend that a miracle was taking place under his very nose.

Yet a miracle it was. For a few minutes before the hour for sailing arrived, the final bale of freight was stowed in the hold, some of the hatches were battened down, and the gangplanks drawn ashore. The *Lycoming* would sail on time.

With a frightful shriek of her great whistle, the huge ship gradually moved astern, sliding slowly out of its dock into the broad Hudson, where boats were crossing and recrossing and passing up and down like shuttles in a loom. The air was vibrant with their shrill, incessant tootings. Ponderously the huge craft, pushed by snorting little tugs, turned its nose down-stream, headed for the open sea, and with quickening speed majestically slid through the tossing waters, with Captain Lansford, erect as a pine and as motionless, watching like an eagle on the bridge.

Roy had lost none of his dislike for this harsh-tempered commander. But when he saw him standing thus at his post, like a veritable Gibral-

tar, Roy gained a new conception of the man's character. Suddenly there came to him an appreciation of the fact that Captain Lansford alone had made it possible to sail on time. Men, whom money would not budge, had worked like mad at his mere command. Obstacles that were seemingly insurmountable had been overcome. Work that was apparently impossible had been accomplished. Roy did not understand it at all, yet he began to realize that there was something in his commander that rose superior to obstacles and carried his fellows with him. Instinctively Roy felt safer because of that silent, immovable figure on the bridge.

"But it makes it all the tougher for me," he thought. "He's got it in for me, and I know he'll never forgive me for talking to him as I did."

Now that the pressure was relaxed, Roy was too busy seeing things to worry about the matter, for the *Lycoming* was fast picking up speed.

"Toot! Toot! Toot!" went the *Lycoming's* whistle, as one vessel after another saluted the new craft. "Toot!" it shrieked; "Toot! Toot!" as approaching craft indicated that they would pass to right or left.

Now far out from the shore, the ship had left behind her the roar of the water-front. Gone

were the stench and dust of the streets, and the noise of traffic. Hidden from sight were the sordid and ugly features of the city. The great buildings seemed like dream structures. A fairy city, indeed, appeared the great American metropolis as it shone in the summer sun. To Roy it was fairer than any city he had ever seen.

Shortly the ship was passing Bedloe's Island, with its towering statue of Liberty. Never had Roy been so close to the giant goddess. Always his heart thrilled at the sight of this emblem of Democracy. He was still a boy, but he was beginning to understand what is meant by that word Democracy. It meant opportunity to climb up, to get ahead, even as he was now starting to do; and Roy resolved that he would let nothing, absolutely nothing, stand between him and duty. For, as he looked at that immovable figure on the bridge, Roy realized more keenly than ever that if anything at all could help him to make good with his captain, it would be through doing his duty—just his plain, every-day duty as it came to him.

Soon the statue of Liberty was far to the rear. Past Robbin's Reef light, past quarantine, through the Narrows, past the forts on either side that dominate the narrow neck of water, and on into the lower bay, sped the *Lycoming*. Ahead

loomed Hoffman's and Swinburne's Islands, the latter with its imposing hospital buildings, where quarantined immigrants are treated. On the right, ever receding, were the low-lying shores of New Jersey. Far to the left lay Coney Island, Manhattan Beach, Rockaway, and other famous pleasure resorts on the south shore of Long Island. While straight ahead rolled the illimitable ocean, the goal of Roy's desire.

Presently Roy heard a step on the iron ladder leading to his perch and a moment later the purser joined him.

"Now," said that individual, with a sigh, "we can let down a bit. When it comes to being a slave-driver neither Pharaoh nor Simon Legree had anything on Captain Lansford. But he got us off on time, didn't he?" And the purser chuckled as though all his hard work of the past few days was a good joke.

On the right the Atlantic Highlands were looming up, and the purser, who had a powerful glass in his hand, pointed out to Roy the range-lights that help to guide the mariner in the dark. Soon the *Lycoming* was off Sandy Hook, that low-lying finger of sand, with its fort and a light-house at the very tip.

"Ever read Cooper's *Water Witch?*" asked the purser, and Roy nodded, "Yes."

"Then you'll remember that famous little craft used to elude her pursuers by sailing into Sandy Hook Bay there—the body of water enclosed by the Hook—and slipping out to sea through a break in the Hook itself."

"Was that the place?" asked Roy, all interest.

"That's it, all right, but the break in the Hook has long since filled up and Uncle Sam now has a little railway that runs along that narrow neck of sand out to the proving-grounds. You know some of the big guns for the army are tested here. If you look carefully, you will see that the little neck of sand is protected on the ocean side by pilings and rocks. Otherwise a heavy storm would wash the sand away and Sandy Hook would soon be an island."

Roy saw that the shore-line for miles was protected by a heavy sheeting of piling and planks.

"It needs to be well protected," said the purser, when Roy drew his attention to the fact. "You will notice that there is an almost unbroken row of houses for miles along the ocean front. The land is nothing but sand and is very low. If it weren't for the protection of these pilings, storms would soon eat the sand away and the houses would topple into the sea. In fact, it isn't very long since a big storm did get a number of them."

"It doesn't seem possible that such a thing could happen," said Roy.

"When you've seen one or two rough storms and have watched the waves crashing over the *Lycoming's* decks, you'll have a different idea of the power of the ocean."

"What?" said Roy. "Do the waves ever sweep over the deck?"

"Well, I guess," said the purser. "Just now the sea is as calm as a mill-pond, but let the wind blow a little and you'll see what a fuss it will kick up."

"But," protested Roy, "the deck is many feet above the water-line. Surely the waves don't get so high as that."

"A good deal higher, youngster. They'll roll up close to thirty feet in a good storm, and that's as high as the average house or higher. Wait till you see some of those huge combers come crashing down on the deck and you won't wonder that they have to fortify the coast along here. There isn't a thing between here and Europe to stop the waves, once they get to rolling."

Roy whistled in amazement and took another look at the ocean.

The *Lycoming* was now fairly at sea. In quick succession she passed a string of towns so grown together that there appeared to be but one long

community. These were the numerous summer resorts that occupy the narrow strip of land between the Navesink River and the Atlantic Ocean. With the purser's strong glass Roy could see from his high perch the crowds of bathers on the long beach and motor-cars speeding along the smooth boulevard that runs for many miles close to the shore-line. As darkness came on, the shore faded from sight. But in its place innumerable twinkling lights sprang into being, stretching in unbroken lines, like great strings of glowing jewels, for miles and miles up and down the coast, with brighter clusters here and there like pendants, to mark the hearts of the numerous towns.

From his high post atop the ship, Roy commanded an unobstructed view for miles in every direction. And in every direction lights twinkled. Ashore, millions of lights shone steadily like huge glowworms. The twin headlights of automobiles, like giant, fiery eyes, turned this way or that and darted through the darkness. Searchlights pointed their long beams toward heaven, where they swung, now here, now there, like enormous pencils of light writing on the firmament. As far as he could see, the coast-line was pricked out in innumerable lights.

Seaward shone the lamps of occasional ships.

In places single, low-lying, bright eyes in the dark betokened the presence of small sailing ships with lights in their rigging. Lanterns gleamed aboard belated fishing ships, as they made for the great metropolis with their cargoes of sea food. And beyond them, but drawing steadily nearer, a moving mass of lights indicated the presence and approach of a great ocean liner.

Roy had only to turn his eyes heavenward to see the faithful watch-lights that God so long ago placed in the heavens, and that are still shining undimmed to guide the footsteps of those who struggle upward—even as Roy was doing. Something of this he felt as he stood in silent wonder, charmed by the myriad lights ashore, fascinated by the bobbing gleams at sea, with their hint of mystery and romance. The sea! What things it had witnessed! What tragedies it had seen! What adventures had occurred on its heaving bosom! What acts of heroism had taken place on its broad expanse!

Duty called Roy to the wireless house, for the early part of the night was his busy hour afloat. As he turned his back on the panorama of lights and went to his post, he wondered what the sea would bring to him. Hitherto he had thought little about the dangerous side of life at sea. Now he began to grasp the possibilities of

tragedy, to understand that not all of those who go down to the sea in ships return safely. As he looked out over the vast void and up into the unfathomable firmament, he felt again that sense of littleness and insignificance that had overwhelmed him upon his arrival in New York. But somehow there was a difference. The stars did not terrify him as his callous fellow beings had done. A sense of awe rather than fear gripped him. Long he looked at the silent stars, so calm, so imperturbable, and though it seemed ridiculous to compare his commander to one of God's stars, he could not help thinking of that calm, immovable figure he had last seen on the bridge. Whether the night was fair, as it was now, or the tempest raged and the wave-crests hurled themselves upon the ship, Roy felt sure that his commander would be at his post, unterrified. With a prayer that he, too, might be found at his post, unterrified, doing his duty calmly when the pinch came, Roy took a final look at the stars, slipped into the wireless house, and sat down at his operating table, ready for the night's work.

CHAPTER VII

THE NIGHT'S WORK

ROY adjusted his receivers, threw over his switch, and listened in. A grin came over his face. The air was as noisy as the old football field at home when Central City was winning. Everybody was yelling through space at somebody else. It was one terrific babel of wireless voices. It seemed to Roy as though everybody within three hundred miles who had a radio instrument was using it. But through all the racket he could plainly distinguish the whining call of the Brooklyn Navy Yard. There was no mistaking that station. Roy tuned in and caught the message. It was an order for a torpedo-boat destroyer to start from Newport News next day for Brooklyn for an overhauling in the dry dock. Then Roy shifted to a commercial wave-length and caught a message from the incoming liner *Kroonland,* asking the police boat to meet her at quarantine to take off a card shark who had been caught fleecing fellow-passengers. The Clyde liner *Iroquois* was announcing to her owners her probable hour of arrival from San Domingo. The signals came so sharp and clear that Roy felt

certain they were sent from the steamer he had noticed earlier in the evening, which was now almost abreast of them.

Night after night he had listened to wireless operators chatting to each other through the air, exchanging gossip and friendly messages. He hoped it would not be long before he became acquainted with some of his fellow operators so that he, too, could join in the evening gossip. But Roy was reluctant to start a conversation with a stranger. He feared he might be thought "fresh." Now, as he looked out of a window at the glowing ship so near at hand, he suddenly decided to talk with her, and see if she were the *Iroquois*. In a minute he had found the *Iroquois'* call in his wireless directory, and the minute the *Iroquois* stopped talking he pressed his key.

"KVF—KVF—KVF—WNA," sounded his signal, as the blue sparks leaped in his instrument.

Almost immediately came the reply, "WNA—III—GA."

"Where are you, *Iroquois?*" asked Roy.

"Off the Jersey coast," came the answer, "about opposite Barnegat."

"Is there a steamer between you and shore?" flashed back Roy.

"Yes. What of it? Who wants to know?"

"That's us," flashed back Roy, "the *Lycoming.*"

"Never heard of you. Are you a tramp? Where from?"

"No. New Confederated liner—maiden voyage New York to Galveston. Roy Mercer, operator—just wanted to say howdy-do."

"Congratulations and thanks," came the reply. "First job?"

"Very first."

"Good luck. How did the Giants make out to-day?"

"Haven't heard," said Roy.

"Good-bye, old top. My name's Graham. Call me up again." And the *Iroquois* passed on, while Roy got his messages ready for transmittal.

There were not many of these. The captain had filed a final report for the owners: a Wall Street broker ordered the sale of a thousand shares of United States Steel if the market rose. A salesman from Toledo wanted his firm to inform him when he could guarantee delivery of some machinery he had sold. And the usual number of pleasure-seekers were sending messages to their homes, announcing their departure from New York. Roy sent off the captain's communication first, then quickly got rid of his commercial messages. For a long time he sat

at his table, listening to the interesting messages that were pulsating through the nocturnal air. He felt sure that as long as he lived he could never grow tired of listening to these interesting voices of the night.

When ten o'clock approached, he tuned to the Arlington wave-length and waited to catch the time and weather signals. Later still, he listened in for the daily news-letter sent out each night by the Marconi Company, for publication next day in the marine newspapers that wireless telegraphy had made possible on shipboard. The *Lycoming* had not subscribed to this service and it was not permissible for Roy to give out the news. But there was nothing to prevent him from picking it out of the air for his own information, or from giving it to the captain. In fact, the Marconi Company rather expected this as a courtesy to captains on ships using their service. So Roy was particular to take every word of the eight-hundred-word news-letter that was flashed forth to the world late that night.

The German peace delegates had handed their reply, containing counter proposals, to the secretariate of the peace commission. The despatch gave the main points in the hundred-and-forty-six-page answer of the Germans. A troop call had been issued in Toronto in readiness for the

pending strike of workers. A new rebellion was anticipated in Ireland. Captain Andre Tardieu had made a remarkable appeal to ten thousand soldiers of the American Expeditionary Force for a closer union between France and America. The baseball scores were given and Roy was pleased to learn that the Giants had beaten Brooklyn five to two and increased their lead. Hereafter he would be a Giant fan. He wondered if Graham; on the *Iroquois,* had caught the news and was almost tempted to call him up. There was a brief résumé of stock market conditions. But what interested Roy most was the announcement that the NC–4 would make its last lap next day from Lisbon to London.

Roy had often picked these nightly news reports from the air, but never before had they meant to him what this message meant now. Always before, he had been on land and had read in the evening papers much of the news included in the nightly news-letter. Now he was at sea. Every hour carried the *Lycoming* farther from shore. By morning, perhaps, she would be out of sight of land. Already Roy was beginning to feel that sense of isolation, of loneness, that comes to first voyagers on the sea. When he thought of all the ships that had gone down and all the people who had perished when help was

really but a few hours distant, he thrilled anew at the thought that he could talk to other ships, even if they were hundreds of miles away, and so get help or bring help. With this thought came a new sense of the importance of his post. Truly his was a vital share in sailing the ship. It called for the best there was in him.

By the time he had copied the weather-report and the news-letter, it was so late he thought the captain was probably asleep. Every night since Roy came aboard, he had sent the weather-report to Captain Lansford as soon as he had received it. The captain had never acknowledged the receipt of these messages nor indicated that he was pleased to have them. Yet Roy thought the commander ought to know about the weather. He was in a quandary. Should he risk the wrath of the captain by taking the message to him, or should he wait until morning and send it? Roy thought the matter over.

"I'm going to take it to him," he said, finally. "He ought to have this report and I'll see that he gets it, no matter what happens."

He picked up the sheet of paper, skipped down the ladder, and presently found himself before the door of the captain's cabin. His rather hesitating knock was greeted by a gruff voice from within.

"What do you want?"

"This is the wireless man with the weather-report and the night's news, Captain," replied Roy.

An angry exclamation was Roy's answer. The door was flung open, and the captain, in his pajamas, stood in the doorway, boiling with wrath.

"Weather-report!" he bellowed contemptuously. "Weather-report! What do I want of your weather-reports? Don't you know better than to come battering at my door in the middle of the night? I left word that I should not be disturbed, and here you come bothering me with weather-reports. I'll have obedience on shipboard, sir, or I'll put you in irons. Now get out. And don't you ever bother me again with your weather-reports."

"But, Captain Lansford," objected Roy, "I thought you might want to know the news, and I have the day's news-letter as well as the weather-report. I did not know that you were asleep or that you had left orders not to be disturbed. I am sorry, sir. I only wished to be of use, not to annoy you."

"Bah! More of your wireless nonsense!" roared the captain, and he banged his door shut. Yet he snatched Roy's papers, weather-report and all, before he did so.

Roy turned back toward the wireless house, but his encounter with the captain had driven every vestige of sleepiness from his eyes. He decided that he would look about the ship a bit. It was cool and pleasant and there were no passengers to bother him. It was against the rules for passengers to visit the wireless house, but already several had asked Roy for permission to do so. Roy hardly knew how to refuse such a request without seeming rude, so he was glad to avoid passengers. He walked aft and for a while stood looking over the taffrail at the foaming trail the *Lycoming* left behind her. Then he went forward and looked ahead. There was no moon, but the stars shone clear and it was surprisingly light. The smallest object would have been visible on the water at a considerable distance. In the very nose of the boat was a sailor on watch. The man stood so motionless and leaned so snugly against the bow that Roy was not at first certain the figure was a man. He was tempted to go talk with him, but remembered in time that it is forbidden to converse with the men on watch. So he leaned over the rail and quietly watched the huge bow wave. He was close to the ladder that leads to the bridge.

Suddenly a voice, very low, but clear and distinct, said, " Come up here, Mr. Mercer."

Roy looked up and saw Mr. Young, the first officer, standing above him on the bridge. Quickly he scrambled up the ladder and found himself beside the man in command of the *Lycoming*. Roy knew that passengers were forbidden on the bridge, and was fearful lest he might be trespassing himself. But Mr. Young soon dispelled his fears.

"As wireless man," he said, "you have a perfect right to come on the bridge, though it might be as well not to do so when the captain is here. You know he has some peculiar ideas."

Mr. Young smiled, yet there was nothing unkind in his smile. Like the purser, the first mate seemed to have some feeling of kindness toward his superior. Roy wondered at it. He did not see how anybody could feel kindly toward such a gruff old dragon. He was the more surprised because Mr. Young, like Purser Robbins, was the very soul of good nature. Roy had been attracted to him from the start, for Mr. Young had made an evident effort to put Roy at his ease. Now he felt more grateful than ever to this great, blond giant. For Mr. Young was even larger than Captain Lansford.

Quietly the two conversed in the starlight, though Mr. Young never took his eyes from the water before them. Occasionally he spoke a

word to the steersman behind him in the wheelhouse. He asked Roy many questions about his life and seemed interested in him. Roy was immensely pleased when Mr. Young remarked that he was glad the ship was equipped with wireless and that Roy was the operator. And Roy was astonished beyond belief when Mr. Young told him that he had sailed as first mate to Captain Lansford for fifteen years. Roy did not see how anybody who could possibly get another post would willingly serve with Captain Lansford. When he said as much to Mr. Young that officer smiled.

"Wait until you know Captain Lansford a little better," said Mr. Young, "and you may think differently." But Roy was sure that nothing could ever change his mind about Captain Lansford. His most fervent wish was to do his work satisfactorily for the next three months and get a transfer to some other vessel.

It was after midnight when Roy sought his bunk. But first he went to his instrument and listened in for several minutes. If the sea was as calm elsewhere as it was about the *Lycoming,* he did not believe any ship could be in distress—unless it might be from fire. Always, since he had watched the flames on that Brooklyn pier, he was thinking about fire at sea. If any vessel needed

help, he did not intend that it should lack assistance through negligence on his part.

When finally Roy retired, he was weary enough. Yet for a long time he could not sleep. The unaccustomed throbbing of the great engines, the vibration of the ship, and the unfamiliar movement as the vessel rode the long, smooth swells, kept Roy awake for a long time. Finally he did sleep, but presently dreamed that Captain Lansford was a real dragon and was about to drown him. Roy awoke with a cry of terror and found that his coat had slipped from its peg and fallen across his face. In another minute he was fast asleep again, and this time he slumbered soundly until six bells in the morning watch, when the striking of the ship's bell awoke him.

Day after day the weather continued fair and the sea calm. Even off Cape Hatteras, most famed of weather-breeders, the sky was like turquoise and the sea like glass. On the second day out Roy was delighted to discover a school of porpoises off the port bow. He had never seen porpoises before, but had often read about these huge playful fish-like creatures; and when he saw them leaping out of the water, one after another, like so many runners clearing hurdles, he knew at once what they were. To his delight they came close to the ship, and for a long time swam ahead

of it, as though towing the great vessel. Roy knew that the *Lycoming* was making at least fifteen knots an hour or better than a mile in four minutes. Yet these big creatures kept pace with her with no apparent effort; and when finally they swam off, they darted away from the *Lycoming* as though she were anchored.

"Whew!" whistled Roy. "If we're going fifteen knots an hour, how fast are those fellows moving now?"

As the steamer drew into southern waters, the gray-green color of the ocean took on a bluish tint. Long before the ship entered the Gulf of Mexico the water was of the most beautiful deep blue, the color being emphasized by little white-caps. Along the Florida coast the steamer drew so close to shore that Roy could distinctly see the wide beaches, with their crowds of bathers and the many automobiles rushing over the smooth sands. Distinctly he could make out palm-trees and other growths new and wonderful to him. Often he watched the water in the hope that he might discover a manatee, but those strange animals frequent shallow waters and Roy saw none of them.

On the way down the coast there was little for Roy to do. Occasional messages came for the captain; passengers sent messages infrequently;

and Roy regularly caught the weather signals and picked from the air the nightly news-letter as long as his instruments could catch the ever fainter pulsations in the ether. These he continued to send to the captain by messenger. Before the journey ended, the *Lycoming* had passed out of range of the transmitting instrument. After that Roy had only the weather-report to send.

The first time this occurred, the captain's steward appeared at the wireless house and soon struck up a conversation with Roy. Casually he asked for the daily news-letter. Roy guessed that he had been sent by the captain expressly for this news-letter. But if that were true, the captain gave no evidence of the fact. He continued to ignore Roy and gave no indication of any interest in Roy's work. To all outward appearances he was merely tolerating Roy's presence on board because he was compelled to do so. And Roy could see no way to gain the captain's favor.

After a quick and uneventful run across the Gulf, the Texas coast was sighted, and five days after leaving New York the *Lycoming* was off the port of Galveston.

CHAPTER VIII

WHERE COTTON IS KING

LIKE Mount Zion, this great seaport was beautiful for situation. Located on the eastern tip of an island some thirty miles long, that lay not far off the mainland and parallel with it, the little city sat snugly between the Galveston Bay on the north and the swelling waters of the Gulf on the south. Barren stretches of sand girt the city on the west, while farther along the coast of the island rose some mound-like structures above which flew the American flag. Roy had already learned that this was Fort Crockett. But of the city before him he knew practically nothing.

After standing straight in toward land for a considerable distance, the ship turned to port and, like a match about to pass a sawlog, steamed directly toward the island, but slightly to the right or north of it. It was mid-forenoon and there was no wireless work for Roy to do at the time. He came out of the wireless house and stood on the upper deck, so as to obtain an un-

obstructed view. Captain Lansford was again on the bridge. On the lower decks passengers were saying good-bye to one another, and making all the preparations necessary for departure. Stewards were bustling about, looking after baggage, helping passengers with their slight wraps and hand luggage, and performing a multitude of other acts designed in part to be helpful, but meant mostly to draw forth generous tips from grateful travelers. Much of this was hidden from Roy. But he could see enough of it to understand what was afoot. He was glad he was by himself, where he did not have to watch it. The very idea of seeking and taking tips was repugnant to him.

He paid slight heed to what was going on below him, however, for there was so much to see elsewhere that he was soon deeply engrossed in the scene before him. So deeply did he become interested that he even failed to hear a footstep on the ladder and was not conscious that any one had mounted to his deck until a voice sounded close to his ear. Roy turned about with a start, then smiled a welcome. It was the chief engineer whose duties, like Roy's, were about ended for the journey.

"Good-morning, Mr. Anderson," smiled Roy. "I'm glad to see you. What brings you up

here? Can I do anything for you? Any messages you want sent? "

" Thank you, Mr. Mercer," said the chief engineer. " I can't think of a soul I want to communicate with. The purser asked me to step up and tell you about some of the things we shall see. He knew that you would be interested in them, but you know this is his busy time. He's up to his eyes in work just now."

" I am obliged both to you and to the purser," said Roy. " I do want to know about Galveston, but I don't want to impose upon you, Mr. Anderson."

" That's all right. It's no imposition. You know I am an engineer and I never tire of talking of some of the engineering feats that have been accomplished here. There is nothing in all the world more interesting from an engineering standpoint than some of the things that have been done right on this little island."

Roy opened his eyes wide. He had no idea that Galveston was anything but a sleepy, southern seaport. He decided not to display his ignorance and so said nothing. But he felt sure that after what he had seen in New York, Galveston must prove to be tame indeed.

For a space the two stood shoulder to shoulder, surveying the scene in silence. The usual morn-

ing breeze had sprung up and the blue waters of the Gulf were foaming white under its breath. The whitecaps chased one another shoreward, and broke on the beach in glistening foam. High above them rose the town, looking for all the world like a city built on a rock. Its white houses gleamed in the warm June sun.

Roy soon forgot the still-distant city in his astonishment at seeing what looked like a gigantic stone wall that seemed to reach straight out from the shore almost to the *Lycoming*. It made Roy think of some of the old stone pasture walls on the farms about his home. But this, being in the sea, couldn't possibly be a pasture wall, and Roy had no idea what it was. On the end of it stood a strong little structure that evidently held a light to guide the way at night.

"What in the world is that curious stone wall for?" asked Roy, turning to Mr. Anderson.

"I thought that you would soon find something of interest," said the chief engineer with a smile. "That is one of the jetties Uncle Sam built to deepen the channel. If you look off to the right you will see a second jetty that roughly parallels this. The jetty on the left is nearly seven miles long. The one on the right is five miles long. That makes twelve miles of stone wall, as you call it. The two walls are two miles

apart at the shore end and seven thousand feet at this end. We run in between them."

"Makes you think of a pasture lane fenced in with stone, doesn't it?" inquired Roy with a smile. "But how in the world can two stone walls have anything to do with making the channel deeper?"

Smiling over Roy's perplexity, Mr. Anderson replied, "That's exactly what these jetties are, in fact—a kind of lane for the waves to go through. There are two bars that obstruct the entrance to this harbor, which otherwise is one of the finest in the land. Over the outer bar there were only twelve feet of water, and at the inner bar nine and a half feet. An ocean liner draws twenty-five or thirty feet, you know, and couldn't possibly get over such a shallow place. That meant that Galveston, though ideally situated for a seaport, could never be reached by big ships. The government kept dredging the channel, but the shoals filled up about as fast as the dredges dug them out. Finally Uncle Sam's engineers solved the problem by building those big stone walls."

"Even now I don't understand what the stone walls have to do with deepening the channel," said Roy, still perplexed.

Mr. Anderson chuckled. "Those stones, as

you call them, are granite blocks weighing five to twelve tons each," he said. "The jetties are twelve to fifteen feet wide at the top and so solid that the water can't flow through them; so it has to run between them, exactly like cattle going down your pasture lane. The tide runs so fast that it washes the loose sand out of the channel, scouring it clean every day, as it were. The result is that now Galveston has a thirty-one-foot channel at high water."

Roy whistled in astonishment. "That beats anything I ever heard of," he said. "It was a pretty slick idea, wasn't it?"

Steadily the *Lycoming* ploughed her way along between the jetties. As they drew near the shore ends of the jetties, Roy noticed that the long south jetty ran directly to Galveston Island, while the shorter north jetty ended at a small island in Galveston Bay. Mr. Anderson said it was called Pelican Island.

But what immediately gripped Roy's attention was the great wall that began at the end of the south jetty and ran around the outer side of the city. Vaguely he remembered having heard of the Galveston sea-wall, and he knew this must be it. He was amazed as he looked at it. Evidently the wall was of cement, for it appeared like a solid piece of stone. Its seaward side was

concave, being far wider at the base than at the top. Its base was protected by a wide riprap of huge granite blocks, evidently intended to prevent the waves from undermining it. Roy wondered how the waves could ever get up to the wall, let alone threaten it, for a stretch of beach, fully two hundred feet wide, lay between the wall and the waves that were now breaking on the glistening sands.

"Well, what do you think of it?" inquired the chief engineer after a time.

"I've heard of the Galveston sea-wall," said Roy, "but I had no idea it was anything like that. Why, that's a wonderful piece of work."

"It's a great deal more wonderful than you think, Mr. Mercer. It is one of the most wonderful things in the world. That wall is built on sand."

"Yes?" said Roy, not appreciating exactly what a difference that meant.

"Yes; on *sand*," repeated Mr. Anderson, with considerable emphasis on the word. "You know a heavy sea would ordinarily quickly undermine such a structure. The sand would be washed from underneath it."

"Then what prevents the sea from doing it?" asked Roy, growing much interested.

"It's built on pilings," replied the chief en-

gineer. "Four rows of 'em driven forty-three feet into the sand and projecting a foot up into the wall itself. Then there's a twenty-four-foot sheet piling behind the outer row to prevent scouring, and the stone riprap at the foot of the wall is twenty-seven feet wide and three feet thick. The wall itself is sixteen feet thick at the base, five feet wide at the top, and seventeen feet high. The city built three and a half miles of it, and the government extended it more than a mile farther to protect Fort Crockett."

"Whew!" ejaculated Roy. "That is some piece of engineering. I don't wonder you like to look at it."

"Oh! That's only part of the story," continued the chief engineer with a smile, "and perhaps the smaller part. The raising of the city to the level of the wall is perhaps more wonderful than the making of the wall itself. Sea-walls aren't unique by any means, but I know of nothing quite like the raising of the level of Galveston. You know the entire city was raised."

Roy looked his astonishment. "Not really?" he gasped.

"Yes, really. Before the storm of 1900 the highest point in the city was only six feet above tide level. Now it is nineteen feet. After the sea-wall was done, they raised all the buildings

and the street-car tracks, built elevated plank sidewalks, dredged twenty million cubic yards of sand from the Gulf and pumped it into the city until it filled up to the proper level. Then they rebuilt foundations, repaved the streets, replanted the trees and shrubs, and resowed the grass."

"Gee whiz!" exclaimed Roy. "I never heard of anything like it. Why, it's wonderful, wonderful! I thought New York was great, but this beats anything I saw there. Just to think of raising a whole city nineteen feet in the air! Why, that's as high as a two-story house."

"It isn't quite so wonderful as that," smiled Mr. Anderson. "The nineteen-foot elevation is only on the Gulf side. That point is two hundred feet back from the sea-wall, so that if any water comes over the wall it will run back into the sea. In the other direction the ground slopes toward the Bay, where they raised the level only to eight feet. As the island is about three and a half miles wide, that makes only a very slight grade."

For some time Roy stood in silent wonder. He was amazed at what the chief engineer had told him. Suddenly he turned to his companion and demanded, "What did they do it for? They'll probably never have another storm like that. Why, it must have cost a pile of money."

"It cost millions," said Mr. Anderson. "But it was worth it. The flood of September 8, 1900, swept over the city to a depth of sixteen feet. People used to live way out this side of the sea-wall, where now you see only tossing water. The entire end of the island for eight blocks inland was washed away, with all the houses. Eight or ten thousand people were drowned and the property loss was many millions. It was the worst catastrophe due to natural causes in the history of America. As for storms, you never can tell. Every fall brings hard ones here in the Gulf. They've had some bad ones besides the Galveston flood. In September, 1875, a terrible hurricane swept the city. Late in August, 1886, another awful storm occurred. But the storm of 1900 was the worst ever known. There was a tidal wave then that swept right over the island. If the city was to be safe, it had to be protected somehow. So they built the sea-wall. Such a wave might occur again at any time. You might see one yourself this coming September. There are always bad storms then."

By this time the *Lycoming* was close to her dock and Roy was more than astonished at what he could see of the shipping facilities.

"Whew!" he said. "It looks as though they could handle almost as many ships here as they

do in New York. I had no idea Galveston was so much of a seaport. There must be miles of wharves. What makes it such a great seaport, anyway?"

"Some years Galveston ranks next to New York in the volume of its shipping," said the chief engineer, "so that it claims to be the second most important seaport in America. So much of our cotton is shipped by way of Galveston that it is the greatest cotton port in all the world. The greatest cottonseed grinding plant in the world is right on the water-front, where its products can be put directly aboard ships. And the port handles an enormous amount of tropical products like bananas, coffee, sugar, lumber, and corn and cattle from Mexico and Argentina. There are probably sixty or seventy lines of steamboats that run from here. Ships go direct from Galveston to all the important ports in Europe, Asia, Latin America, and Cuba. So you see they need vast shipping facilities. There are six miles of wharves here and more than one hundred great ocean freighters can load or unload at one time."

"Great Cæsar!" ejaculated Roy. "This certainly must be a great city. How big is it, anyway?"

"That's the interesting thing about Galveston.

It does all this business, but it's really only a small city. I doubt if there are more than fifty thousand people here, and its total area is only about fifteen square miles. You could put it in one of New York's pockets, so to speak. Yet it is the leading seaside resort in the southwest and more than a million pleasure-seekers visit Galveston every year."

"Gee whiz!" said Roy. "They must be hustlers if so few people can handle so much traffic. It seemed to me it took almost five thousand stevedores and truck drivers just to load the *Lycoming*."

Mr. Anderson laughed. "They can handle so much freight," he said, "because everything is built so as to facilitate the work."

He pointed out some grain elevators beside the wharf from which wheat was pouring through great spouts directly into waiting steamships, and he showed Roy water-front warehouses for steel materials, broom-corn, cotton, and other products.

"We shall dock beside a cotton warehouse," said the chief engineer. "Step into the place when you go ashore and take a look at it."

By this time the *Lycoming* was close to her berth. The chief engineer said good-bye and scrambled down the ladder. Roy watched Captain Lansford dock the steamer. He could not

but admire the skilful way in which the commander laid the huge ship beside her pier as though she were a mere foot-boat. Then Roy came down to the lower decks and watched the passengers swarm ashore. Presently he went down the gangplank himself. He walked up and down the wharf, which felt very strange indeed because it did not move like the ship.

Presently he stepped into the cotton warehouse the chief engineer had pointed out to him. Its size amazed him. It was hundreds of yards long and many wide. Seemingly it contained thousands of huge bales of cotton, each weighing five hundred pounds. On the landward side freight trains were standing full of cotton. And the floors of trains, warehouse, and wharf were on a level, so that the cotton could be trucked direct from freight-car to steamer in one handling. Roy could not help contrasting this expeditious way of handling freight with the cumbersome system necessary in New York.

He was turning the matter over in his mind when the superintendent of the warehouse came along. Noticing Roy's uniform, he stopped and spoke to him.

"Fine morning, sir," he said. "Belong on the *Lycoming?*"

"Yes, sir," answered Roy politely.

"Anything I can do for you?"

"Thanks. I think not," said Roy. "I was just admiring your warehouse."

The superintendent's face lighted up. "Ain't she a daisy?" he said. "One of the finest in the world. Step in and look around."

"My!" said Roy, "you've a lot of cotton here."

"A mere handful, my boy, a mere handful," repeated the superintendent. "Our cotton concentration plants here can accommodate a million bales, sir, a million bales. We've handled four million bales in a year at this port, sir."

Roy stepped across the warehouse to look at the cotton cars, but his eye was instantly caught by the long lines of car tracks that ran parallel with the wharves. The superintendent noticed his astonishment.

"There are more than seventy-five miles of tracks abutting on our water-front," he said, "so you see we can handle a heap of stuff."

Roy whistled in amazement. "How do trains get here?" he asked. "This is an island, isn't it?"

"It sure is an island," replied the superintendent, "but we are connected with the mainland by a big causeway of reinforced concrete, like the sea-wall. It's two miles long, and has three railroad tracks, a roadway for vehicles, and

a path for pedestrians. It cuts right across the Bay from the island to Virginia Point on the mainland. You can see it from here." And the obliging warehouseman showed Roy the huge stone roadway spanning the Bay.

"Too bad it had to be built, isn't it?" said Roy. "It cuts your harbor in half, I suppose. If it weren't for that you could sail ships clear around the island."

"We can, anyway," replied the superintendent. "There's a roller lift bridge spanning the channel that lifts straight up to let ships pass through."

"Well, I never!" exclaimed Roy. "Is there anything you folks haven't done down here?"

The superintendent's face glowed with pride. "Yes; that's a pretty fine causeway," he said, "but as an engineering feat there's nothing in Galveston more interesting than our water supply. We get our drinking water from artesian wells on the mainland, the water being carried through huge pipes laid under the Bay."

"You are certainly a wonderful lot of people, you Galveston folks," cried Roy.

Again the superintendent smiled with pleasure. Then his face became serious. "We have done a lot of interesting things here," he said, "but we aren't a bit different from the rest of the nation.

We're Americans. That explains all these up-to-date achievements. They represent the spirit of America. You'll find Americans doing the same kind of wonderful things wherever you go—New York, or San Francisco, or here in Galveston."

"I'm mighty glad I'm an American," said Roy with emphasis.

"You ought to be, young man. Don't ever forget that."

The superintendent went on about his duties and Roy began to look about him again. He wanted to see something of the city itself, but decided to wait until the purser could go with him.

It was not until after luncheon that the purser found time for a stroll with Roy. Then the two set out for a tour of the city. As they came down the gangplank, the harbor-master was passing. Catching sight of the purser, he turned about and hurried over to greet him.

"Good-evening, Mr. Robbins, good-evening," he said heartily, shaking the purser's hand warmly. "I sure am glad to see you. You'll pardon me for hurrying away now, won't you? For I have a pressing job on hand. But won't you all stop at my office later? If I'm not there you all find chairs on the gallery. Nathan will look after you."

"Thanks," smiled the purser. "We'll be delighted to stop."

He introduced Roy and the harbor-master hurried away, again apologizing for leaving them.

When the harbor-master was out of hearing, Roy turned to the purser. "Did you notice that he said 'good-evening' to us, and it's only half-past one?"

The purser laughed. "In the south," he explained, "evening begins at one minute after noon. Nobody ever says good-afternoon down here."

"Well, I never!" exclaimed Roy. "And what did he mean by 'find a chair on the gallery'?"

"Gallery is the southern name for piazza or portico," said the purser.

"And did you notice how he said 'you all'? Does everybody talk like that down here?"

Again the purser laughed. "Unless he's just landed, like yourself, he does."

"Well," said Roy, with a sigh, "I see one thing. I've got to learn how to speak English all over again or these folks won't know what I'm talking about. How does it come that southerners talk so different from the rest of the country?"

"It's easy to see that you've never traveled," replied the purser, "or you wouldn't say that.

New Englanders don't talk any more like New Yorkers than New Yorkers talk like folks out west."

Roy's eyes opened wide. "I never knew that," he said. "What's the reason for it?"

"The size of the country," said the purser. "The United States of America is as big as half a dozen countries of Europe rolled into one. We don't think it strange that people of different nations speak different languages and it isn't any stranger that people in different sections of such a vast country as the United States should develop different dialects."

"I never thought of that before," said Roy.

They passed on into the city. But though it was midday very few persons were to be seen.

"What's the matter?" queried Roy. "The streets are almost deserted and there doesn't seem to be any business going on at all."

Again the purser smiled. "Just another difference in customs," he said. "In England, you know, all business stops for five o'clock tea. Here it is the custom to rest during the middle of the day. That's a common practice in all hot countries."

"Well, I never!" cried Roy. "I'm certainly learning a lot."

They passed on into the city. The business

houses were mostly low and old-fashioned. The dwellings were mostly detached frame structures, each standing in a yard full of flowers and shrubbery. There was an almost utter absence of large trees, but after what Roy had learned about the grade raising he understood why there were none. It astonished him to learn from the purser that there never had been any real tall trees, because the island was so near tide level that the salt water seeping through the sand killed all deep-rooted growths. What particularly delighted Roy was the presence everywhere of rich growths of oleanders, and other tropical plants that he had never seen before.

"I feel almost as though I were in a foreign country," said Roy after a time. "It is all so different from the north."

"In a sense you are in a foreign land," replied the purser, "for Galveston hasn't been a part of the United States nearly as long as your native Pennsylvania."

"I didn't realize that," said Roy. "How did that happen?"

"You've evidently forgotten your history, Roy. Galveston Island, and all of Texas, for that matter, once belonged to Mexico, and Mexico was ruled by Spain."

"Of course," said Roy, somewhat mortified.

"This island," continued the purser, "was named after the Count de Galvez, the Spanish viceroy of Mexico. In 1836 Colonel Michael Menard organized the Galveston Company and bought the island from the Republic of Texas for $50,000, but the company didn't prosper very well. Later we fought Mexico and in 1848 acquired all of Texas and other border states in the southwest. After that date Galveston was a sure enough part of the nation, but you see Uncle Sam was a hale old gentleman of nearly seventy years by that time. So Galveston has been a part of the country only about half as long as the territory in the original thirteen states."

"It's mighty interesting to think of the Spaniards being here," said Roy. "Reminds you of pirates."

"There were pirates here all right, but I do not believe they were Spanish. Jean Lafitte was a very notorious pirate, and in 1816 he made this island his headquarters. Later he was driven out by the United States government. What an ideal place this was for him, with this fine bay to hide in until unsuspecting ships came near. He could probably get fresh meat here, too, for this island was once a favorite hunting ground of the Caronkawas, a powerful and warlike tribe of Indians that lived along the Texas coast."

The two continued straight on across the island and finally found themselves on the Gulf side. They stood on the broad sea-wall and looked out over the great expanse of tossing waves. Far as the eye could see nothing was visible but shining water. Far below them the waves broke on the sands and chased one another up the sloping beach. High above the sands, on great pilings, stood numerous pavilions and piers built for the accommodation of pleasure-seekers. Along the sea-wall ran a broad promenade of asphalt, the water-front buildings standing a hundred feet back from the sea-wall. There were few bathers, but the purser said the beach would be crowded later in the day.

From the Gulf beach the two sightseers made their way back to the *Lycoming* by circuitous routes, walking this way and that to see objects of interest that the purser wanted to point out. They saw some of the twenty magnificent hotels that care for the floating population, including the community hotel, The Galvez, that was built by popular subscription. They took a look at the United States Custom-house and other public buildings, saw the great dry dock and marine works, the clearing and conditioning elevator, the creosoting plant, and a number of big factories and warehouses. When they got back to the

Lycoming, after stopping for a chat with the harbor-master, Roy felt as though he had been on a very long journey. He had seen more new things and learned more than he believed possible in one day.

But nothing pleased him more than the fact that everybody treated him as though he were a man. It was only a few days since people in Central City had been shouting at him, "Hey, kid!" Now every one addressed him as Mr. Mercer and was very courteous to him—that is, every one excepting Captain Lansford, who hardly spoke to him at all and who seemed annoyed every time he met him. Roy believed he was doing his work well enough to deserve his captain's good-will. He had been absolutely faithful and had spent much more time at his post than the regulations required. But the captain seemed to have no understanding of that fact or appreciation of what he was doing.

"Well," sighed Roy, "one swallow doesn't make a summer, and one voyage doesn't make an experienced wireless man. The time will come when the captain will be glad he's got a wireless man aboard. I'll learn all I can and make myself as useful as possible. My opportunity will come."

CHAPTER IX

THWARTING A WIRELESS INCENDIARY

THERE seemed small chance that his opportunity would come while the *Lycoming* was in port, however, for the great ship lay peacefully in her dock, day after day, while the process of loading her went on apace. There was almost nothing for Roy to do. Though he had seen a great deal on the day of his arrival, there still remained many points of interest that he wished to visit. But before doing any more sightseeing, Roy determined to familiarize himself with the *Lycoming*. He was working for more than amusement. A chance might come, even though he had nothing whatever to do with navigating the ship, when a thorough knowledge of the vessel might be of great use. So he decided to stick to the ship for a time.

Roy was now in position to learn with ease whatever he wished to know about the *Lycoming*.

He felt sure that both Mr. Young, the first mate, and the chief engineer, Mr. Anderson, had taken a fancy to him. As for the purser, Mr. Robbins, Roy knew well enough that the latter was his firm friend. Sam, the steward, had looked after Roy with that genuine solicitude that only an old southern darky can display, and Roy had already grown fond of the white-headed negro. He knew that these men would gladly show him any parts of the ship he wished to see.

Immediately after breakfast on the morning after their arrival, Roy slipped down to the purser's office. He intended merely to ask what was the most interesting thing to see on shipboard. But when he beheld the purser sweating at his desk, with a mountainous pile of bills, receipts, and other memoranda stacked around him, Roy immediately made up his mind what he was going to do.

"See here," said Roy. "Isn't there something I can do to help you? I can add pretty well and write a plain hand, and I'm looking for a job."

The purser looked at him quizzically. "Tired of sightseeing already?" he asked.

"Not a bit of it," said Roy. "I'm going to see everything in this town that's worth seeing. But you're loaded down with work. I can see

that. And if there's anything I can do to help you, I want to do it. The sightseeing can wait. What shall I do?"

"If you really mean it," said the purser, "you can help me an awful lot. Just read these memoranda to me while I check the entries in my books."

All that morning Roy and the purser worked in the latter's office. Roy read memoranda, added figures, copied accounts, and did other tasks as directed. For a while Mr. Robbins checked up Roy's work; but he soon found that Roy was careful and made no mistakes. When noon came the purser threw down his pen with a sigh of relief.

"Lad," he said, "it would have taken me two days to do alone what the two of us have accomplished this morning. This just about clears up my work at this end of the trip. I can't tell you how I hate all this business of accounts or how much obliged I am to you. I don't know how to thank you."

"Pshaw!" protested Roy. "I haven't done anything. I ought to thank you for teaching me something about a purser's work. I want to know all about steamships, now that I'm going to live on one."

"Good boy," cried the purser. "I thought I

wasn't mistaken in you. I'll back you to succeed, Roy."

"I'll need a whole lot of backing," laughed Roy, "if I am ever to get anywhere with Captain Lansford. He sure has it in for me."

"Just forget about him and keep on plugging," said the purser. "You'll swear by him when you know him better."

Roy made a wry face.

"Come on, lad," suggested the purser, pulling on his coat. "No old ship's grub for us to-day. We'll have a bite of real southern cooking."

He hooked his arm in Roy's and they hustled up the gangplank and down the wharf toward a near-by restaurant, where they had chicken gumbo soup, fried chicken, hot corn bread, Mexican coffee, so strong it almost made Roy sick, and a number of other dishes that were strange and wonderful to Roy.

The purser was feeling very complacent by the time they returned to the ship.

"What do we do next?" asked Roy. "I'm eager to learn some more about a purser's work."

"We're going to tackle a little job that is always part of this purser's business when he is in Galveston, and that will be as interesting to you, I suspect, as it is new."

He leaned forward and punched the call

bell. In a few moments Sam, the steward, appeared.

"What can I do for yuh, Mistah Robbins, suh?" he inquired, bowing and smiling.

"You know that little job I always do down here with a pound of white meat, Sam?"

"'Deed I does, suh," chuckled the darky, grinning from ear to ear.

"Well, then you know what to do, Sam. I want you to fix us up in your very best style. Mr. Mercer has never dangled a bit of white meat."

Sam went out, chuckling aloud, and Roy was too astonished for words. He didn't like to ask questions, for the purser had once admonished him to keep his eyes open and his mouth shut if he wished to get ahead in the world; so he waited for the purser to explain. But Mr. Robbins gave him no hint of what to expect. All he said was, "We'll just check off this last list while Sam is getting us ready." But Roy could see that the purser's eyes were dancing.

Before they were done with the check-list, Sam reappeared. He had two large chunks of whitish meat, each piece weighing a pound or more, and each being attached to a long length of strong cord.

The purser threw down the list they were

checking. "Come on," he said, and picking up the two pieces of meat, he led the way on deck. A yawl was bobbing alongside the *Lycoming* and a rope ladder had been let down to it. In the yawl lay two scoop nets. Mr. Robbins dropped the meat into the yawl, then led the way down the ladder.

"Now lower your meat into the water until it is completely out of sight," said the purser, when the two had seated themselves at opposite ends of the little boat. "When you feel something nibbling at your bait, pull up very slowly and gently. So." And he dropped his meat into the water, then carefully raised it.

Roy did as directed, and sat very still, holding the line over his forefinger. The current tugged at his bait and deceived him at first and he lifted his meat in vain. But presently he felt a very different sort of pull on his cord. Drawing it upward ever so gently, the white meat presently came in sight and hanging to it with its two claws was a greenish-blue creature with a number of flippers gently waving in the water.

"Easy now," urged the purser. "Scoop him gently or you'll lose him. He's a big one." And he thrust one of the nets into Roy's hand.

But Roy was too eager. He made a little splash as he dipped the net, and the creature

sank from sight. Roy made a vigorous scoop with the net, but missed it.

"Pshaw!" exclaimed Roy. "That was a fool trick. I'll bet I don't scare the next one away."

Nor did he. The purser lifted and netted one of the creatures while Roy was speaking, and dropped it in the bottom of the boat. But before Roy had time to look at it, he felt another tug at his line. Gently lifting his bait, he discovered another of the creatures nibbling at it. This one was a whopper. Taking great care, Roy netted the thing and dropped it in the boat with an exclamation of triumph.

"They look exactly like crabs," said Roy, "only they are green instead of red."

The purser burst into a roar of laughter, and over his head Roy heard suppressed titterings. He looked up and saw several of the stewards, including Sam, watching them.

"Forgive me, old fellow," said the purser after a moment, wiping his eyes with his handkerchief. "I just couldn't help laughing. They are crabs, all right enough. Those you are evidently familiar with have been boiled. These will be red, too, when they are cooked. Boiling changes their color."

Roy laughed heartily at his own mistake. "I don't wonder they turn red when they're boiled,"

he said. "I believe I should, too. And I don't wonder you laughed at me."

"I'm heartily ashamed of myself," said the purser, now sober enough, "but I just couldn't help it."

"Don't you worry about that," smiled Roy. "I should have laughed harder than you did if I had been in your place."

"Good for you, Roy," rejoined the purser. "Anybody who can laugh at a joke when it's on himself, will get along all right."

In a short time they had caught a fine mess of crabs and the creatures were crawling all over the bottom of the boat. Roy tried to pick one of them up, but the crab nipped his fingers with its claws until the blood came.

"Gee whiz!" exclaimed Roy. "They sure can pinch."

"Let me show you how to handle them," suggested the purser. And selecting the largest and fiercest looking crab in the boat, he deftly caught it from behind and picked it up. The creature tried in vain to pinch the purser's fingers but could not reach them. Imitating the purser, Roy safely picked up a crab and soon was holding one aloft in each hand.

"Sam," said the purser, dropping his meat into the bottom of the boat, "see what you can

do with these fellows. And remember, Mr. Mercer has never eaten fresh crabs."

When the two fishermen had climbed to the deck of the *Lycoming* and Sam had taken charge of the crabs, the purser said to Roy, "Now run along and enjoy yourself. I'm a thousand times obliged to you for your help."

"Isn't there anything more that I can do to help you?" asked Roy.

"Not a thing, lad. One can finish what remains as well as two, and perhaps better than two. But I'm obliged to you for the offer."

"I'm obliged to you for the dinner and the introduction to real, live crabs," said Roy as he turned away from the purser and found himself face to face with the chief engineer.

"Well, did you enjoy yourself?" asked Mr. Anderson, with a smile. "I saw you crabbing with Mr. Robbins."

"I had a fine time," answered Roy. "It was my first experience at catching crabs."

"You're seeing lots of new things, aren't you?"

"Yes, indeed, and they are all interesting. Sometime I hope you will be willing to show me your engines."

Mr. Anderson's face lighted up like a child's. "Would you really like to see them?" he asked.

"Indeed I would, Mr. Anderson. I want to

learn everything I can about ships. Sometime I may be able to make use of the knowledge."

"That's the way to get ahead in the world," commented the chief engineer. "Learn all you can about everything. If you are not busy now, I'll be happy to show you the engine room. It's always a pleasure to show things to people when they are interested."

"Thank you, Mr. Anderson. I shall be glad indeed to see the engine room."

They went down into the interior of the ship. "These are the coal-bunkers," said the chief engineer, showing Roy the rows of compartments where the coal was kept and explaining how it was carried to the fire-room by coal-passers. The fire-room itself seemed like a furnace to Roy, but Mr. Anderson said it was quite cool, for some of the fires had been drawn altogether and most of those still burning were banked.

"If you want to know what heat is," said Mr. Anderson, "you must come down here sometime when we're making maximum steam pressure. Then every one of these furnaces is roaring hot. At that time the only air that gets into the fire-room comes down through the ventilators and goes up through the furnace. That's what we call forced draught. It keeps the firemen busy then to feed the fires and rake the grates clear of

clinkers. You can see what beds of coals they have to tend."

He threw open a furnace door. Even with the fire burning low, the wave of heat seemed stifling to Roy.

"How can they ever stand it to work in such heat?" asked Roy. "The temperature must be terrible here when all your fires are roaring."

"Yes; it gets pretty hot. I suppose the thermometer touches 150 or 160 degrees at times. The men wear thick woolen shirts to protect them from the heat. But even so they can't stand it very long at a stretch. They work in four-hour shifts."

With great interest Roy looked at the huge boilers and all the shining machinery. He had no idea it required such a great lot of engines to run a steamship.

"It's mighty interesting," said Roy, when they had completed their inspection, "and I am very much obliged to you for showing this to me. Sometime I want to come down when all your fires are going. I'm glad I have seen it all, for now it will mean more to me when the ship is at sea. I'll think of you fellows sweating away down here in order that the ship may sail safely."

"And we'll think of you, way up in your perch, keeping watch and calling help if we need it.

It's a great comfort to know that the *Lycoming* is equipped with wireless. The old boat we used to run on had no wireless, and many's the storm I've been through when I thought my last minute was near. I tell you we have some rough weather down here in the Gulf."

"Well," said Roy ruefully, "I'm glad you don't agree with the captain about wireless. It's rather discouraging to work in such circumstances. It will help me to do good work to think about you fellows down in the engine room."

"Yes," agreed Mr. Anderson, "it takes a good many men to run a big ship, and every one has to do his work well if the ship is to be safe. But when you think of the rest of us, don't forget that the captain is working for you just as hard as the rest of us, and perhaps harder. You mustn't let your differences with the skipper blind you to his worth. He's a great sailor. Some day you'll admire him as much as the rest of us do. Good-bye. Come again."

Roy spent many hours watching the unloading of the ship. It was interesting to see the big boom draw over the open hatch and the great netfuls of freight come slowly up out of the hold and swing over the ship's side and down to the wharf. But eventually the scene lost its charm, and Roy was glad enough when the purser came

along one morning and invited him to take a walk along the water-front. They visited a number of ships, and Roy saw several that he had read about in the newspapers. Everybody seemed glad to see the purser, and Roy did not wonder that he had so many friends. They went aboard one of the big ships of the Ward Line, and the purser made Roy known to the wireless man and some of the officers, as he had done on each ship.

"You came down just a lap behind us," said the wireless man, whose name was Reynolds, "and you'll be only a few hours behind us going back. I'll give you a call once in a while and let you know what sort of weather is ahead of you."

"Thanks," said Roy. "That will be fine."

"You should have arrived a day sooner," said Mr. Reynolds, turning to the purser. "The *Empress* left just twelve hours before you came in." And then to Roy he added, "Stimson is wireless man on the *Empress*. He's a bully good fellow, and you'll like him."

"Pshaw!" exclaimed the purser. "The captain will be sorry to hear that. Funny about those two men, isn't it?"

The wireless man nodded and the purser turned to Roy, who was wondering what he meant.

"You know the captain's brother is in com-

mand of the *Empress,*" he explained. "She runs to Cuba and South America. The two men have been sailing to this port for a long time, but they haven't seen each other in ten years. They always seem to miss each other. Their schedules just don't quite overlap, and both are such blame good sailors they're always on schedule."

"You bet they're good sailors," said Mr. Reynolds with emphasis. "You're a lucky fellow to start your life afloat with such a commander as Captain John Lansford. He's easily the best commander your line possesses, and I rate him as the best sailing into Galveston. He wouldn't be commodore of the Confederated Lines if he weren't a crackerjack, you can bet, and he wouldn't be in charge of their newest and finest boat. But his brother is a close second."

Roy made no reply. He had no idea his commander ranked so high. Presently they said good-bye to Mr. Reynolds and continued on up the water-front. They visited a number of great warehouses, had a look inside a grain elevator, and went aboard several more ships. Altogether Roy met eight or ten wireless operators. He felt grateful to the purser for making him acquainted with these men. He foresaw that it would make his work much more pleasant. When they came back to the ship the day was almost ended. Roy

noticed that the big boom was no longer working, but had been made fast again. Evidently the ship was unloaded. Next day they would begin to take on cargo. Excepting for a few small shipments of stuff from Mexican ports, the cargo would consist almost wholly of cotton.

The instant Roy set eyes on his commander the next morning, he knew something was wrong. From the purser he soon learned that the cotton train that was bringing the *Lycoming's* cargo had been wrecked, and would be many hours late, if not indeed whole days behind time. There was considerable cotton in the warehouse, but nowhere nearly enough to fill the *Lycoming's* capacious holds.

The Mexican stuff was put aboard first. There were logs of mahogany, bags of coffee, bundles of crude rubber, quantities of cocoanuts, and bales of hemp. These were stowed in the very nose of the ship. Then the colored roustabouts began to load the cotton.

Roy had been astonished at the work done by the stevedores in New York. He was simply amazed at the herculean labors of the dusky cotton handlers. From the far end of the great warehouse, they came trundling the huge cotton bales, each weighing approximately five hundred pounds, on their little barrel trucks. But what

astonished Roy was the way they shot their great loads into the ship's hold. The tide was at ebb, and the *Lycoming's* open ports were far below the level of the wharf. Down a steep gangway cut into the pier itself went the roustabouts, one behind another in a constant stream, each riding the handles of his truck to lessen the speed as his heavy load fairly shot down the incline. By the time the truck plunged through the open port its momentum was terrific. Yet the roustabout regained his footing, and guided the fast-moving truck to one side with incredible skill, often turning it at a sharp angle. For a long time Roy watched the ceaseless procession of cotton bales shoot into the *Lycoming's* hold. At first he hardly breathed for fear a truck would upset as it made the sharp turn, and those behind it come crashing into it, probably mutilating, if not killing outright, the roustabouts that guided them. But truck after truck came plunging down, one close behind another, while the returning freight handlers as ceaselessly pushed their empty trucks up the other side of the gangway. It seemed to Roy that an accident *must* happen. Yet minute after minute passed and the procession of cotton bales continued without interruption.

For an hour Roy watched the roustabouts, his wonder at their strength and skill increasing

minute by minute. Finally he decided that he would ask Mr. Young to show him the wheelhouse and the officers' quarters. He had hardly reached the main stairway, however, before a revenue officer came bustling aboard and demanded to see the *Lycoming's* commander. Sam, the steward, carried the officer's message up to the captain's cabin, and a moment later Captain Lansford came striding down the stairway.

The revenue officer greeted him with great politeness. "I'm sorry to tell you, Captain Lansford," he said, "that we are in receipt of a tip that a quantity of whiskey has been smuggled into this port from Mexico in bales of hemp. I have traced the bales and find they have been loaded aboard the *Lycoming*. I'm sorry, sir, but I'll have to examine those bales."

The captain gave an exclamation of disgust. "Where are those bales stowed?" he asked, turning to the officer in charge of loading.

"Forrard, sir, in the very nose of the ship."

"Can we get at them easily?"

"There are a few hundred bales of cotton piled on top of them and behind them."

"The dickens!" snorted the captain. "Get 'em out, and be quick about it."

Instantly word was passed to the roustabouts to stop loading and take their trucks into the

hold. But the roustabouts could not shift the cargo fast enough to suit Captain Lansford.

" Get your donkey-engine ready to hoist those hemp bales out," he ordered.

The engine had been stowed forward. Skids were put under it, the engine was shifted into position, the belt slipped on, and the foremast derrick-boom unlashed and coupled up with the engine.

Meantime the roustabouts had been taking the cotton bales from the nose of the ship and trucking them aft of the forward hatch, where they dumped them down without order. The result was that the forward hold speedily filled and the cotton began to pile up under the hatchway.

When Captain Lansford noticed it he exploded with anger. " Get those bales out of that," he shouted at the roustabouts. " We want the hatchway clear for hoisting."

Not all the cotton had yet been removed from the forehold and the way aft was blocked by the cotton that had been thrown helter-skelter by the roustabouts.

" Start your engine," called the captain, " and jerk some of those bales out on deck."

The donkey-engine was started and bale after bale lifted to the deck, while the roustabouts below were struggling desperately to shift the bales

away from the hatchway. In the haste the cotton was handled recklessly. Some of the metal bale straps were broken, the white, snowy contents bulging out of the sacking like pop-corn swelling out of an overfilled popper. But finally all the cotton was got out of the road. The deck about the hatchway was piled high with it, and the hold near the hatch was heaped with disorderly piles of it.

Next the bales of hemp were trucked to the hatchway and hoisted, one by one, to the deck. Eagerly the revenue officer attacked them, cutting bands, tearing out handfuls of the long, dry fibres, and probing in the hearts of the bales. Soon the deck was littered with loose hemp fibres and wads of cotton, that the stiff breeze blew about in little clouds. Bale after bale was torn open, but though he searched every bale, the revenue officer found no smuggled whiskey. In great mortification he apologized to the captain for his interference with loading operations. Roy was surprised at the captain's reply.

"You were merely doing your duty," he said, "and no apologies are necessary. Have a cigar—a real Havana—sent me by my brother—and not smuggled, sir." And the captain opened his cigar case and extended it to his visitor.

"Well, wouldn't that jar you?" said Roy to

himself. "I expected to see some fireworks and here he hands the revenue man a good cigar. I noticed one thing. He said it was all right because the man was doing his duty. Maybe there's hope for me after all."

The revenue officer went away. Captain Lansford ordered the cargo stowed again and went to his quarters. Mr. Young took charge, and soon the roustabouts were putting the ship to rights again. Roy lingered to watch them.

First of all the hemp bales had to go back in place. Cords were brought and the bales tied up in the best way possible. But it was not practicable to replace the torn-out fibres. One by one the hemp bales were lowered into the hold. The cotton bales followed. Roy noticed that when these great quarter-ton packages rose above the deck they climbed aloft jerkily and he saw that the belt on the donkey-engine was slipping badly. For several minutes he watched, then walked over to the donkey-engine to see what was wrong. Cotton bales were piled all about and he had to edge his way between them and the whirling belt. Suddenly the wind lifted his hat. He grabbed for it, then jumped back as though he had been jabbed with a pin.

"I must have been scraped by the moving belt," thought Roy. But a second later he

muttered, "Why, a belt couldn't have felt like that through my clothes! Wonder what it was."

Curious, he again pressed close to the belt and again something stung him.

"Electricity," thought Roy. "That slipping belt is generating electricity."

Then he thought of the cotton. A glance showed him a ragged bale with a metal strap broken in two places, and one jagged end swaying close to the moving belt. Across the bale, and lying fairly on the broken metal band, rested a chain that had been flung there to clear the deck. Its lower end dangled across the metal frame of the hatchway. The thought of fire flashed through Roy's head. A spark leaping to the broken band as it had leaped to his body, might ignite the ragged bale. The litter of cotton and hemp fibre, swirling in the wind and falling through the hatchway, would carry the flames like tinder to the heart of the ship.

"Mr. Young," shouted Roy. "Get that bale away quick!"

But even as he spoke a spark leaped across the break in the bale strap. A second spark might fire the bale. There was no time for words. Roy leaped to the belt and frantically tore it loose. The donkey-engine began to race at terrible speed. The bale in mid-air came tumbling

down on the heaped-up cotton, bounced to the deck, and landed fairly against the racing donkey-engine. With a crash that jarred the ship the engine overturned. Snap! went the piston-rod. Then the machine lay still.

Roy was aghast. He turned to the first officer to explain. The captain, aroused by the noise, came running down the stairway. His face grew black as he surveyed the ruin.

"What does this mean?" he demanded, turning to Mr. Young.

But before the first officer could speak, Roy stepped in front of the captain.

"I did it to prevent fire, sir," he said.

The captain exploded with wrath. "What do you mean by interfering with the operation of the ship?" he said fiercely. "If there was danger of fire, why didn't you notify the officer in charge?"

"I did try to, sir, but there wasn't time. The belt was generating electricity and the broken bale strap was already charged with it. I saw one spark, and if I hadn't thrown the belt off the engine the cotton might have been afire in a second. With all this litter on deck, the wind blowing so hard, and the hatchway open, the ship might have burned. I'm sorry I broke the engine, sir, but I acted to save the ship."

"All nonsense. Who ever heard of a donkey-engine belt making sparks. Don't you ever dare to interfere with operations on shipboard again. Go to your quarters. And in future try to control your imagination."

CHAPTER X

A LESSON IN DIPLOMACY

A FEW minutes later the purser stepped quietly into the wireless house. Roy sat before his operating table, his head bowed on his extended arms.

"Cheer up!" called the purser. "This won't do at all. Tell me what has happened."

Roy recounted the entire incident. As the recital continued, the purser's face became as sober as Roy's had been.

"I don't know a thing about electricity," he commented, when Roy had concluded his brief description of what had occurred. "Are you very sure that you are correct?"

"Absolutely, Mr. Robbins. You see, the belt on the donkey-engine was slipping. I noticed that at the start. The slipping of the belt produced undue friction and that, in turn, developed frictional or static electricity. The more the belt slipped, the more it became charged with electricity. Finally the belt became so highly charged that the electricity jumped to the sway-

ing end of the broken bale strap. This bale strap was broken into two pieces. The end swaying caught the charge as it leaped from the belt and a second spark occurred when the charge leaped the other gap in the strap. This last part of the strap was grounded by the chain that ran down to the metal frame of the ship. So there was a perfect mechanism for making and discharging electricity. As long as the belt continued to slip, electricity would have been generated. And every time the current was discharged, there would have been a spark right in that loose cotton where the bale was broken open."

"I don't know a thing about electricity, as I told you. But if you say it was so, I have no doubt it was."

"It's just like electricity in the skies," explained Roy. "You have often seen lightning, Mr. Robbins. Lightning is only electricity leaping from a cloud to the earth or to another cloud. We usually have lightning in hot weather. Then the heated air from the earth rushes upward with such velocity that it generates electricity, charging the clouds with it, just as that whirling belt was charged by the friction of the wheel. That electricity has to reach the earth. When the potential is high enough, the current leaps from the cloud to the earth and a spark

occurs which we call lightning. Sparks are made only when an electric current is interrupted in its flow and has to jump a gap. Electricity is flowing through a telegraph-wire all the time, but there is no spark because there is no break in the wire. But if the wire should be cut and the ends held near together, the current would jump the gap, making a spark as it leaped. That's the thing that makes it possible to have automobiles. Electric currents run from the magneto, which generates them, to the spark-plugs in the cylinders. There the currents have to leap tiny gaps and sparks result, which explode the gasoline vapor. There are several ways to generate electricity, but the current, once generated, always follows the same laws. Yet I couldn't make the captain understand. In fact he wouldn't give me an opportunity to explain. I tried to do my duty by the ship, and now I'm worse off than ever. The captain will never have a bit of use for me after this. I suppose I'll not only lose my berth at the end of my three months, but he'll make such an unfavorable report about me that I'll never have another chance."

"Don't you worry about that, Roy. Leave it to me. I know the captain like a book and I know how to fix things up. I don't wonder you feel as you do about Captain Lansford, but when

you really know him, you'll feel differently. He has his peculiarities, like the rest of us, and one of them is his utter hatred of what he terms new-fangled ideas. The greatest pride of his life is the fact that in thirty years at sea he has never lost a man or a ship. If some one can show him that you probably saved his ship from destruction, he'll have a very different idea of both you and wireless telegraphy."

"But he won't listen to any explanation," said Roy, mournfully.

"Leave that to me. I know how to fix him. Meantime, continue to do your work as faithfully as you know how. Forget that you are working under Captain Lansford and remember that you are working for the welfare of the *Lycoming*. If you do that, you can't fail in time to win the captain's good-will. That's his test of every soul aboard—whether or not they are working for the good of the ship.

"When you threw off the engine belt and the engine was broken, you hit the captain harder than you understood. He has a wonderful record for sailing on time. We're behind with our loading now. When that cotton train does arrive, the captain will drive every soul like mad. We were short-handed when we left New York. The captain has taken on four men here at Gal-

veston, but he doesn't like their looks. If they aren't any better than they appear, he might as well not have hired them. But what is most likely to delay us is the relative scarcity of roustabouts. But if it's humanly possible, he'll be loaded on time. The loss of the donkey-engine may interfere very seriously with loading operations. You never can tell when you are going to need it. The thought of that and not the mere injury to the engine is what made him so angry. But remember this, Roy. Everything considered, the captain handled you very gently. I know it was because he realized that you were sincere in your belief that you were acting for the good of the ship. He didn't believe a word you said about the electricity. He thought you imagined that you saw sparks. But whether you believe it or not, he gave you full credit for trying to do your duty."

"He took a mighty queer way of showing it," said Roy, ruefully.

"He's a queer man, Roy. But he's absolutely honest and absolutely just. His trouble is to see past his prejudices."

"Then how are you ever going to make him understand about the donkey-engine?"

"Leave that to me, Roy. I know how to manage it."

But if the purser did know, he apparently forgot all about the matter. At least so it seemed to Roy. Hours and even days passed with no further reference to the affair by the purser, who was again busy, and with no change in Captain Lansford's grim attitude toward Roy. It even seemed to Roy as though the captain avoided meeting him, and Roy could interpret that only as meaning that the captain was still angry with him and was annoyed at the sight of him. In consequence, Roy was miserable, particularly because he thought the purser had failed him. That hurt, for Roy still suffered from boyish impatience. He thought that the purser, if he could remedy the matter at all, should be able to fix it overnight.

Meantime, the process of loading went on apace. The warehouse was emptied and every possible preparation made to rush the loading when finally the belated cotton train arrived. Roy had watched with wonder the way the ship was loaded in New York, but he was simply astounded at the way the work went here. He had always heard that southern darkies were indolent; but there was nothing indolent about these strapping, dusky roustabouts. They seemed as tireless and tough as army mules. Hour after hour they worked at top speed, shoot-

ing the cotton bales into the *Lycoming's* hold in an uninterrupted stream and at a pace that was past belief. Extra pay was offered them to work over-hours, and by the aid of numerous electric lights the work continued until well into the night. Very early in the morning work was resumed. So it went until the last bale was aboard. The cargo was safely stowed and the hatches battened down before the sailing hour had arrived.

Again Roy had to admit to himself that what seemed impossible had once more been achieved and that it had been accomplished by the captain. Lovable he was not. But something about him was so big and strong, so dominating, so overpowering, that his spirit seemed to communicate itself to those around him. Roy had often heard of magnetism, without exactly understanding what it was. Now that he actually saw it, he did not recognize it as magnetism. All he knew was that the captain, when aroused, seemed so utterly to dominate those about him that they became for the time being infused with his own spirit. And that spirit simply would not admit the possibility of failure. To Captain Lansford the word " if " was unknown.

Long before the loading was completed the last passenger was aboard, and there was nothing to prevent the *Lycoming* from casting off on

the stroke of the hour. As sailing time approached, Roy once more found himself busy. As usual, there were messages to send for passengers and more or less routine work to be done in connection with the departure of the ship itself.

By this time Roy's shyness was beginning to wear off. On the trip down he had purposely kept aloof from passengers, and except for the first officer, the chief engineer, and the purser, he had made few friends. Now he felt more at home. He had become familiar with his duties and his position. He knew what was expected of him. Naturally of a friendly disposition, he was glad that his position permitted him to know the various members of the crew and the passengers. Of the men in the fire-room and the sailors he saw little; but he now tried to cultivate the acquaintance of the other officers and of some of the passengers. His sunny disposition and natural brightness soon made him a general favorite. Had it not been for the captain's uncompromising attitude toward him, Roy would have been quite happy. He felt that he was succeeding in his work, and he could feel that those about him liked him. But it still hurt him to think that the purser had failed him.

On the first day out Roy was late in answering

the dinner call. As he passed the captain's table, on the way to his own, some one whispered audibly, "There he is now." A score of persons looked around as Roy made his way to his own seat. Hardly had he settled himself in his chair before the purser's voice rang out from a near-by table. It was so unlike the pleasant-mannered purser thus to talk in loud tones that Roy was astonished. He paused to listen, as everybody else seemed to be doing.

Distinctly he heard the purser saying, "Yes, sir, saved the ship by his quick wit. The donkey-engine belt was slipping and creating electricity by friction. The broken end of a metal cotton bale strap swaying close to the belt became electrified, and the charge leaped across a break in the strap, like a spark jumping the gap in a spark-plug. There was no end of cotton and hemp fibres swirling about in the wind, and the spark itself occurred in some loose cotton that had bulged out of the bale when the metal strap broke. It was broad daylight and nobody saw the spark but the wireless man. He was watching for it. He knew that sparks would continue to flash as long as the belt kept on generating electricity and that another spark might set the cotton afire. The chief engineer says it's a miracle that the cotton didn't catch. If it had, the

flames would have spread like lightning with all that loose stuff about and the wind blowing half a gale. Fire would have been in the hold before anybody could have said Jack Robinson, and nothing short of a miracle could have saved the ship. For there was no steam up to fight the flames with. The chief engineer says that if Mr. Mercer hadn't acted so promptly, the *Lycoming* would certainly not have been sailing to-day, to say the least."

During this recital the dining-saloon had become as still as death. Not a knife clinked or a glass tinkled. Every other voice was hushed. The waiters paused in the aisles, trays held aloft, until the purser concluded his recital. Speaking as though to his own table only, the purser was really addressing everybody in the dining-saloon. Every one could hear him plainly and distinctly, including Captain Lansford. Like everybody else he listened carefully, but his face was inscrutable.

When Roy realized that the purser was talking about him his cheeks flamed with embarrassment. He bent his head and kept his eyes fastened on his plate. As the purser continued his story, hot anger came into Roy's heart. It was quite bad enough for the purser to fail to make an effort to straighten out the matter with Captain Lansford.

But for the purser to humiliate him merely for the sake of making a telling story was unforgivable. For Roy could not conceive why the purser should mention the matter before the entire company of passengers unless it were that he wanted to tell a striking story. Angry, confused, embarrassed, Roy wanted to flee from the dining-saloon. But he could not do so without making himself conspicuous. There was nothing to do but go on with his dinner. So angry and confused that he hardly knew what he was putting into his mouth, Roy tried to eat. But no sooner had the purser stopped speaking than scores of eyes were focused on Roy, and from every part of the room complimentary remarks were flung at him. Then somebody cried, "Speech! Let's hear from Mr. Mercer himself!" The cry was taken up and the dining-saloon rang with the summons, "Speech! Speech! Tell us more about it, Mr. Mercer."

Roy was paralyzed with embarrassment. He had done nothing remarkable, nothing out of the ordinary, and to be made a hero under such circumstances was humiliating. In fact, in his worriment, Roy had almost come to the conclusion that the captain must be right and that far from being a hero he was only a troublesome meddler.

"Speech! Speech!" continued the cries.

But Roy was dumb to all appeal. He looked at his plate in silence and his face flamed like fire.

"Ladies and gentlemen," cried the purser, springing to his feet when he saw Roy's embarrassment, "Mr. Mercer is a man of deeds, not words. Every one of us from the captain down will feel safer because he is aboard. He evidently does not want to talk and we shall not make him. I owe him an apology for putting him in such an embarrassing position. I'll punish myself by making a speech for him."

The purser was both a ready and a witty speaker and for several minutes he kept the diners laughing at his good jokes. That gave Roy time to regain his composure. By the time the purser's little speech was ended Roy was quite himself again. When those seated at his table turned to congratulate him he talked to them frankly and without embarrassment, but refused to discuss the incident the purser had described. Numbers of people spoke to him when the dinner was ended. Roy was glad when he could escape and seek the seclusion of the wireless house.

Yet he felt far from being hurt or mortified, as he considered the matter calmly in the seclusion of his own room. Every word that the purser had said was true. The engine belt *was* generat-

ing electricity. He *had* prevented a fire by his action. Of that he had not the slightest doubt. But there was nothing in what he had done that was in any sense heroic or that deserved especial mention.

Any one else, seeing the danger, would have acted to save the ship. The sole difference between himself and others who were on the scene was that he had realized the danger and they had not. But he could claim no credit for that. He was trained in electrical matters and would have been a poor wireless man, indeed, if he had not detected the danger.

The only question was whether or not he had done his part well after discovering the danger. Roy thought the matter over carefully. He could not see that there was anything else he could have done. And that belief made him feel better pleased about the matter.

He didn't want the passengers to consider him a hero when he wasn't a hero. But, on the whole, Roy was glad the passengers knew about the matter. He wanted to get acquainted with some of them and the incident would make that an easy matter. But most of all he was glad that the story had been told before the captain. It was worth the embarrassment he had suffered to know that the captain had had to listen to the story

whether he wanted to or not, and to hear what some of the ship's officers, including the chief engineer, thought about the matter. Yes, that certainly was worth while. Roy felt that he could almost forgive the purser for telling the story, since the captain had had to listen to it.

Suddenly a thought came to Roy. He pondered a moment over it, then called out in astonishment and mortification. "Why, you old chump!" he said to himself, "that's the very reason the purser told the story—so that the captain *would* have to listen to it. If the purser had gone to him with an explanation, the captain would have shut him off as he did me when I tried to explain. All done for your own good, and here you were doubting the purser and feeling angry at him for trying to help you. I guess the captain was right when he called you a wireless infant. Thank goodness, I haven't had a chance to say anything to the purser, or I'd probably have proved to him that I was a wireless fool as well. You bet I won't forget this lesson—or the purser's kindness, either."

Presently the sober look disappeared from Roy's face and he began to chuckle. "Slick, wasn't it?" he muttered. "I wonder if the old dragon realizes that the purser put one over on him."

If the captain did realize it, he gave no hint of the fact. His treatment of both the purser and Roy altered not a whit. But Roy was interested to note that before they had been afloat twenty-four hours the captain's steward stepped into the wireless house again, and after some conversation casually asked for any news Roy had picked up.

Roy had plenty of news to give him. The Gulf coast was fairly dotted with wireless stations. Brownsville, Port Arthur, Galveston, New Orleans, Savannah, Key West, Pensacola, Fort Crockett, Fort Dodd, and numerous other Marconi or government stations fringed the great body of water, some of which would always be within reach of the *Lycoming*. The United States Navy station at Guantanamo, the Marconi stations at Miami, Jacksonville, Cape Hatteras, and Virginia Beach, the navy stations at Charleston and the Diamond Shoals light off Hatteras, and the army stations at Fort Moultrie and Fortress Monroe, were only a few of the land stations that would likewise be within communicating distance at some period of the journey. Ship stations by the dozen would be within call during the voyage, for there was a constant procession of ships up and down the Atlantic coast—ships sailing to or from home ports along the

ocean and the Gulf, vessels for Mexico, and Central America, and Cuba, and steamers bound for South American ports or destinations on the Pacific *via* the Panama Canal.

Some of the stations would always be within reach even though two hundred and fifty to three hundred miles was about the limit of Roy's calling distance by day. When the atmosphere interfered or thunder-storms were kicking up an aerial disturbance, he was sometimes unable to talk more than half that distance. Even the slightest things made a difference—the temperature, the nocturnal dampness, the contour of the earth when talking to land stations, the level spaces over the ocean. At the outside he could not talk more than three hundred miles by day. But at night, when he got " freak " workings, he could sometimes send a thousand miles and receive twice that distance. On more than one occasion Roy had already distinctly caught the Arlington weather signals, here in the Gulf, and once he had picked up messages sent by the Tropical Radio Telegraph Company, from its station on the Metropolitan tower in New York to its station in New Orleans.

On the second night out Roy sat at his post, listening in. Voices were coming through the air from every direction. It was a wonderful night

for radio communication and Roy could hear farther than he had ever heard before. Behind him he could distinguish both the Marconi stations at Galveston and at Fort Crockett, farther up the island. The army post at Brownsville was relaying a message from El Paso to the Panama Canal. Roy wondered if it would carry successfully over that great stretch of land and water. The Charleston Navy Yard was flinging out a call for the destroyer *Mills,* and finally an answer came back from a point near Key West. The *Mills* was ordered to proceed to Guantanamo to coal. The navy operator at Key West was talking to Havana. Behind him Roy could hear the Mallory liner *Lampasas* sending private messages for passengers. The Ward liner *Morro Castle* was talking somewhere in the mist to the eastward. The Clyde liner *Cherokee,* off to the southeast, was calling for her sister ship *Comanche.* Along the South Atlantic coast regular processions of ships were moving in two lines, some going north, others coming south, and all talking at once. Distinctly Roy heard the call signals and answers of the Ward liner *Monterey,* the Mallory liner *Comal,* the Standard Oil boat *Caloria,* the Red D liner *Caracas,* the Savannah liners *City of Atlanta* and *City of Augusta,* and the *Florida* of the Texas Company. He could

even hear, far to the north, the Old Dominion liner *Jamestown,* and the Merritt–Chapman Wrecking Company's *Rescue.*

But what most interested Roy was the nightly news-letter flung abroad at the usual hour by the New York Marconi station. It was easily twelve hundred miles away, yet Roy could hear every word distinctly. The captain would be interested in this, and Roy picked up a pencil and jotted down the night's news: " Three-thousand-peasants-are-massacred-by-Hungarian-Reds---stop—Soviet-guard-shoots-and-hangs-revolters-at-Oldenburg — stop — Hungarian-Reds-beat-back-Czechs — stop — Pressburg-threatened — stop—Wilson-may-sail-in-ten-days—stop—Premiers-near-agreement — stop—Wilhelm-likely-to-escape-trial-envoys-think—stop—Punishment-of-ex-Kaiser-is-dead-issue—stop—French-will-try-Cavell-betrayer—stop —Hurley-asks-six-hundred-millions-to-finish-ships—stop—Says-Burleson-makes-United-States-pay-for-strike—stop—Telegraphers'-leader-says-people-must-stand-cost— stop— Victor-Berger-says-chaos-ahead— stop— Prosecution - of - socialists - will-bring-direct-action—stop—Britain-stirred-by-rumors-of-modified-peace—stop—Nicaraguans-ask-United-States-to-send-troops-to-prevent-threatened-invasion-from-Costa-Rica-by-army-

now-massed-on-border—stop—First-state-will-ratify-national-suffrage-amendment-this-week—stop." Then came the stock-market report and the baseball scores.

Roy took down every word. Hardly had he finished writing when a sound struck his ears that momentarily stopped his heart.

"SOS," came the signal, clear and distinct. "SOS, SOS." It was the international signal of distress.

Other ears than Roy's caught the cry for help and in a second a hundred operators were fairly yelling encouragement through the air.

"Who are you? Where are you? Give us your location? What is the matter?"

It was a ship Roy did not know. She lay well out in the Atlantic, and not in the usual steamship lanes. She had broken her shaft and was wallowing helplessly, unable to make repairs. The barometer was going down and she wanted to be helped to port. The nearest ships were those in the west-bound lanes for transatlantic liners. Presently Roy heard the navy station at Arlington asking a west-bound liner to go to the ship's assistance.

Just as Roy was about to lay aside his receivers for the night he heard the *Lycoming's* call, clear as a bell. It was Reynolds, the wireless man he

had met in Galveston. Reynolds' ship was off Jacksonville. He reported the weather as threatening and the sea rising, with a storm coming from the north.

"Where are you?" asked Reynolds.

"In the Florida Straits," replied Roy.

"You'll catch it sometime to-morrow probably," flashed back Reynolds. "Good luck to you. Look me up when you reach New York. Good-night."

It was now quite late. Unless the captain was on watch, he was doubtless asleep. Roy was in doubt as to what he should do, but finally decided to take the news to the officer in charge. He was the proper official to know about the approaching storm. Roy copied down his weather-report and the night's news-letter, and made a note of the SOS call and the communication from Reynolds. Then he sought the bridge.

Mr. Young was in charge, the captain having retired for the night. "Thank you, Mr. Mercer," he said, as Roy gave him the despatches. Then, glancing them over, he went on, "So it's getting rough off Jacksonville, eh? I knew we were heading into a storm. The barometer has been falling steadily. It probably won't be anything more than a gale at this season. We'll be in it by noon and perhaps earlier. I am glad to know

about it, and I thank you for troubling to inform me."

"It's no trouble," said Roy. "I should think every navigator would be more than glad to have wireless service on his ship. Think of that helpless liner out in the Atlantic with a storm coming up. Where would she be if she couldn't have summoned help? I can't understand how anybody can feel the way Captain Lansford does."

"There are some things past understanding, Mr. Mercer. But perhaps things may happen that will change the captain's mind about wireless telegraphy. Good-night."

Roy went to his room and to bed, wondering if he would ever have the chance suggested by Mr. Young, of changing the captain's attitude toward him and his work. He thought of the ship out on the ocean, lying helpless in the path of the coming storm, and wondered if the opportunity he longed for would come with that same storm. He was a long time getting to sleep. Finally his eyelids closed, but before they did Roy was dimly conscious that the ship was rolling more than she had since he had been a member of her crew.

CHAPTER XI

A VISIT TO CHINATOWN

IT was long after daybreak when Roy awoke. He sat up on the edge of his bunk to look at his timepiece, but almost immediately fell back on his pillow. Something was wrong with him. Roy had had very few illnesses in his life and he did not at first know what ailed him. He felt sick all over. He heard the ship's bell strike and realized that if he wanted any breakfast he would have to hustle. But at the thought of food he felt worse than ever. In fact, it seemed as though he never wanted to take food again. The very idea of it made him feel worse. Then he knew what was the matter. He was seasick.

Presently he got to his feet and punched the call bell. Then he lay down again. He became conscious that the ship was rolling violently—at least the motion seemed violent to Roy, though a seasoned sailor would have smiled at the idea. Sometimes a lurch of the ship almost threw Roy out of bed. The wind was howling about the wireless house. Things were rattling and creaking under its pressure. Rain was falling. Roy

was sure that the ship was in the midst of a terrible and dangerous storm. He wondered if he were needed. Then he wondered if he would be able to get to his operating table. He felt so sick that he was sure he was going to die.

Then Sam, the steward, appeared. Roy could hardly believe his eyes when he saw the venerable darky enter his room smiling. Roy didn't see how anybody could smile in such a storm. And he said so to Sam.

"Lawd bless you, Mr. Mercer," said Sam. "Dis yere ain't no great storm. It's only a little gale. Wait till you sees one o' dem September exenoxtail storms. Den you'll know what a real storm am like."

Roy felt relieved. "I feel sick enough for anything, Sam," he said. "I don't believe even an equinoctial storm could make me feel any worse. Can you do anything for me, Sam?"

"Lawd bless you, Mr. Mercer, I'll fix you up in no time. Jess you stay in bed till I gets back," and Sam disappeared through the doorway. In a few moments he reappeared, with a lemon and some concoction he had mixed in a glass. Roy gulped the mixture down and presently felt somewhat better. After a time he rose and dressed, but he did not go near the breakfast table. From time to time he sucked at the

lemon, as Sam had told him to do. By the middle of the forenoon he felt much better. When the dinner call came, he decided that he would go down to the dining-room and perhaps eat some soup.

He expected to be teased a little, but there was almost no one to plague him. Chair after chair was empty, only a few seasoned voyagers having ventured to the dining-room. The purser was at his table, smiling and jolly as usual. It cheered Roy merely to look at him. The captain was not present and Roy knew he was pacing the bridge. However much he disliked Captain Lansford, Roy knew that the commander would be found at his post of duty in time of stress. But little did Roy realize that before his time came to leave the *Lycoming* he would see the day when, of all the things for which he was grateful, he was most thankful because Captain Lansford was in command of the *Lycoming*.

By nightfall the ship had run past the storm, and by the next day the wind was again blowing at a normal velocity, though the water continued to be rough.

The passengers rapidly recovered from their seasickness, and left their staterooms. Again the decks were peopled with a jolly throng. On the sheltered side of the ship and on the after-deck,

passengers sat in intimate little groups chatting, or in solitary aloofness, noses buried in the latest novels or magazines. Steamer chairs were set in rows, with indolent old ladies, corpulent men, and weary invalids reclining at ease in them. In the saloon little knots of passengers were gathered about tables playing cards. Games were played on the open parts of the deck, such as ring toss, and bean bags. Altogether it was a happy company aboard the *Lycoming*.

As is always the case at sea, formalities were forgotten. Acquaintances were easily made and before the voyage was half over everybody knew everybody else. Roy profited by the opportunity and soon was on speaking terms with most of the passengers. His uniform was his introduction, and after what the purser had said about him, everybody was eager to make his acquaintance.

It was a real opportunity for Roy to cultivate social grace, and he realized this. Keen of observation, he had long ago noted the great differences in manner in different persons. Some, by their pleasing way, he saw, charmed and attracted all with whom they came in contact, like the purser. Others, like the captain, seemed to repel and offend by their austerity of mien and deportment. Aboard ship Roy met all types of people and had abundant opportunity to study

them and analyze the effects produced by their conduct. Most of all he studied the purser. Everybody liked the purser, and Roy saw that this was invaluable to Mr. Robbins. He could deal with more passengers in an hour than some men could handle in double that time. And he could obtain favors that were denied others. The secret of Mr. Robbins' power, Roy came to believe, lay in his kindliness of heart, coupled with his invariable cheerfulness and his unimpeachable integrity. Roy came to understand that true courtesy is merely good-will expressed through kindness. The more he studied people the more clearly Roy saw that a man's manners have much to do with his success or failure in life.

"If that's the case," thought Roy, "a fellow's a fool not to cultivate a pleasing way. What's the use of working hard to learn a trade or a profession or a business and then lose half the advantage of that training by lack of proper manners?"

Thereafter he consciously strove to make people like him. That was not a difficult task, for Roy was good-looking and both witty and sunny in disposition. Before long he found himself a general favorite. In a way that troubled Roy, for passengers persisted in coming to the wireless house, which was contrary to regulations. He

had to inform visitors that unless they came on business he could not allow them in the wireless house. As Roy was popular and everybody aboard was interested in him and his work, passengers began to send messages merely that they might see something of the wireless house. The result was a tremendous increase in business—an increase which the Marconi people were not slow to notice. Thus, although he did not realize it, Roy was already profiting by his effort to cultivate charm of manner.

Swiftly the days went by. The weather continued fair and pleasant. Roy remained busy. He had many messages to send for passengers and at night he continued to take the time and weather signals and to jot down the day's news for the captain. Most of all he loved to listen in at night when the air was vibrant with wireless voices. Every night he talked to Reynolds, and soon felt as though they were old acquaintances. Behind the *Lycoming,* Roy soon discovered, were some of the vessels he had visited with the purser in Galveston. He had many a conversation with them before finally the *Lycoming,* just at dusk, drew abreast of the signal station at Sandy Hook, and a string of flags was hoisted above the *Lycoming* announcing her safe arrival. The flags came fluttering down and Roy knew that

the marine observer was probably already sending out the news that the *Lycoming,* with cotton aboard, had arrived from Galveston. It was dark when the ship reached quarantine, and dropped her anchor just off the Staten Island shore to await a medical inspection in the morning.

The quarantine officials were astir early and the *Lycoming* was soon on her way up the harbor. Roy had no work to do, and he came out on deck to enjoy the stirring scene. Mr. Young was in command, and he invited Roy to join him on the bridge. Roy was amazed at the great number of ships in the harbor. Never had he seen anything like so many. Ordinarily the waters of the upper bay hold but few ships at anchor. Now there were vast fleets of anchored ships. Usually, Roy knew, tramp ships were almost the only vessels to be found anchored in the harbor. But now he saw dozens of fine, large ships that were quite evidently liners, lying in one or another of the various anchorages. He could make out the names of some of the vessels, so that he was sure he was right.

" How does it come," he asked the first officer, " that these liners lie here at anchor instead of at their piers? "

" Because some other ships occupy their piers,"

explained Mr. Young. "The harbor has never seen such congestion as exists now. It is relatively as crowded as Fifth Avenue on a sunny afternoon. So many ships now come to this port that it is necessary to have a marine traffic squad, just as they have a traffic squad ashore to direct land traffic. You have seen traffic policemen at the street corners holding up traffic and sending it this way and that. If you keep your eyes open, you will see the same thing out here on the water. Dozens of great liners are arriving daily with soldiers and war supplies and the usual freight of commerce. Docking space gave out long ago, so the traffic squad regulates the matter of unloading, assigning different docks to the different ships as fast as there is room. Sometimes there are more than 150 great ships lying at anchor at one time. Many of these are craft built since the war began. Every night a number of ships arrive off quarantine, just as we did, and they must anchor there until examined by the officials. The doctors get to work at six-thirty and the early part of the day is a pretty busy time in this harbor. Every morning there's a regular procession of ships steaming up to their piers from quarantine."

Roy looked behind him and saw several ships following the *Lycoming*. There were four

ahead of the *Lycoming,* but he had not realized what a string of incoming ships there was. Suddenly a swift little craft came darting across the water, straight toward the advancing line of ships.

"There's one of the patrol boats," said Mr. Young. "Probably it has directions for some of us."

The little boat, which was one of seven patrol boats directing the traffic, steamed directly toward the ship immediately ahead of the *Lycoming,* turned when abreast of her, and shot close to her side. A traffic official shouted something through a megaphone and waved his hand toward the statue of Liberty. At once the big ship swung toward Bedloe's Island, and in a few minutes Roy heard her chain rattle as she dropped her anchor. Meantime, the patrol craft had sped past the *Lycoming,* the man with the megaphone directing Mr. Young to proceed to his accustomed dock.

"I'm glad they aren't going to hold us up," said Mr. Young, as he rejoined Roy. "We might swing at anchor for a week if we ever got into that crowd."

He waved his hand toward the western anchorage, where a great fleet of ships tugged at their anchor chains.

"Why, there are dozens and dozens of them," exclaimed Roy. "They seem to be anchored in groups."

"Yes. That is to make room for ships to pass. You see there is one big group between Robbins' Reef light and the Jersey shore. That is an anchorage for general cargoes. Then you notice a great pier built out from the Jersey shore and the narrow channel leading to it. Just north of that channel a little way is the anchorage ground for ships loaded with explosives. It is just below Black Tom Island, where that awful explosion occurred during the war. Above that point the anchorage extends north of Ellis Island. Altogether that's a space several miles long, and it's just jammed with ships. Over on the Brooklyn side and even far up the Hudson the anchorages are crowded."

"I'm glad I have seen this," said Roy. "It is wonderful."

"You may well be glad. We used to think New York harbor was a pretty busy place before the war, but it was dead compared with the present conditions. I don't know what we'll do if traffic continues to increase the way it has been increasing the last few months. The only thing that saves the harbor from utter confusion now is the traffic squad. Its power is absolute and we

have to do exactly as the patrolmen say. So they keep excellent order and prevent all sorts of trouble. But I tell you they are strict. It doesn't take much of an offense to bring a fine on a ship captain, and for a serious offense he may even lose his papers."

Just then Captain Lansford came on the bridge with a despatch in his hand. " I will take charge, Mr. Young," he said. Then, turning to Roy, he said brusquely, " Send this."

Roy took the despatch from the captain and returned to the wireless house. There was the usual number of messages to send for the passengers, telling of a safe arrival, and by the time Roy came out of the wireless house again, the *Lycoming* lay snug in her dock. Hatches and ports were open, and the derrick booms were creaking as they hoisted from the hold great slingfuls of trunks and other baggage. The purser, as usual at such a time, was buried under an avalanche of work, and Roy spent the day helping him. He had formed a real affection for the purser, and was rapidly making himself invaluable to that official. Having assisted him once before, Roy was now somewhat familiar with the purser's work. The thought that he was really helping his friend gave Roy genuine pleasure. He was so busy and so preoccupied that

he did not notice the clamor and racket on the pier, as the ship was unloaded, or hear the roar and clatter from the water-front.

Night hushed the discordant noises of the day as effectually as though some one had clamped a lid down on them. The streets were already deserted and quiet when Mr. Robbins threw down his pen and heaved a deep sigh.

"There," he exclaimed, "that's a good day's work—a mighty good day's work. And the Bible tells us the laborer is worthy of his hire. Get your cap, Roy, and we'll get something to eat. No ship's grub for us to-night, eh?"

They went ashore, caught an up-town subway train in a few minutes, and got out at Worth Street. A short walk took them through an Italian district to Chinatown. Roy had never visited Chinatown before. He was so much interested in what he saw that the purser could hardly drag him away from the shop-windows. There were wonderful pieces of needlework on display, intricate and weird carvings of ivory and ebony, curious little trinkets and ornaments of jade and semiprecious stones, vases little and large, brass trays and ornaments, and a thousand other unfamiliar and strange objects. But what interested Roy more than anything else was the strange foods displayed in the provision shops.

There were dried fish, dried fowls, dried meats, curious candies made of some gummy substance covered with queer little seeds, or dried orange-peel or other vegetable growths covered with a coating of sugar. There were Chinese cabbages, unlike any cabbage Roy had ever seen, for instead of being round or flat, they were tall and urn-like, or even cylindrical. There were curious creamy-white little things in big baskets that the purser said were bamboo shoots, and water-chestnuts that looked like lily bulbs.

The purser led the way to a restaurant in Pell Street. Its atmosphere was so strange and foreign that Roy was almost startled. Heavy, curiously wrought hangings decorated the walls. Great screens, ornamented with elaborate needle-work, stood here and there. Dragons and curious birds were wrought on them. Grilles of elaborately carved ebony divided the dining-room into smaller compartments. The little tables and the stools about them were of teak-wood or ebony, elaborately carved by hand, and very heavy. Lustrous banners with heavy dragons on them hung here and there. Slit-eyed Chinese stood silent and inscrutable in their curious dress, ready to take orders. The odor that pervaded the place was unlike anything Roy had ever smelled. Partly it was the odor of cooking,

partly of incense, partly of tobacco, though Roy was not able to analyze it. All he knew was that it was as unusual and striking as the bizarre decorations.

"Lots of people would not think of eating in a Chinese restaurant," said the purser as they seated themselves, "but such a prejudice is unreasonable and foolish. Chinese cooks are clean. They are probably the best cooks in the world, not even excepting the French, who have such a great reputation. You see China swarms with a population really too great to be supported by the country's resources. So the greatest thing in a Chinaman's existence is the food problem. Everybody learns to cook, and to make delectable dishes out of almost nothing. In all the world there are no more delicious foods than some the Chinese make. As you probably don't know what to order, I am going to take the liberty of ordering for us both."

The purser called the waiter and ordered chicken omelette, fried noodles, a little chop suey, a ham omelette, some preserved kumquats, and some Chinese candy. He told the waiter to bring the dishes one at a time so that they would be warm. While the cook was preparing the order, the waiter brought two bowls of rice and a pot of tea, with sugar and some tiny cups. Mr.

Robbins filled the cups and they sampled the beverage. Roy had never tasted such delicious tea. Nor had he ever seen rice cooked like that in the bowls. It was perfectly cooked yet dry and flaky. It was not at all the mushy stuff he had eaten in American homes.

"The Chinese," explained Mr. Robbins, "eat rice just as we do bread. Most of their dishes are more or less greasy or soupy, and the rice takes up the gravy very nicely. Chinamen eat it with chop-sticks, and they will bring you some if you want to try it. But I suspect you will make much better weather of it if you use a fork."

Roy laughed. "A fork for mine," he said.

Presently the waiter brought a ham omelette. Mr. Robbins cut it in half and served it. "Bring the chop suey, too," he said.

That was fetched and they fell to. But Roy hadn't eaten more than two bites before he stopped and looked at the purser.

"That omelette is the best thing I ever tasted," he commented.

"Wait till the chicken omelette comes," smiled the purser.

They ate the ham omelette and nibbled at the chop suey as a side-dish. Then the waiter brought the chicken omelette and the fried noodles. The chicken omelette wasn't so much un-

like a good chicken potpie, but it was more delicious than any chicken dish Roy had ever eaten. The noodles were curious little slivers of dough fried crisp and covered with gravy. They were good, too. But Roy was sure he had never tasted anything so delicious as the two omelettes. He ate until he could hold no more.

When they left the restaurant Roy thanked the purser for the treat. "I'm obliged to you for the food," he said, "but I'm more obliged to you for showing me something new. I might never have known about the Chinese way of cooking if it hadn't been for this experience."

"Good!" smiled the purser. "I'm glad you put it that way. Lots of people lose a great deal of fun and happiness in this life because they aren't willing to try new things. The older we get, the worse our prejudices become."

Roy's face grew serious at once. "I should say so," he answered. "Look at Captain Lansford. Why, his ship is a thousand times safer because he has a wireless outfit. Yet he doesn't like it at all. It hardly seems possible that anybody can be so unreasonable."

"It does not. Yet the world is full of such foolish prejudices."

"Well," sighed Roy, "I hope that I'll never get like that."

"You won't if you try not to, Roy. But you may if you don't. You know eternal vigilance is the price of liberty. And that applies to mental liberty as well as political."

They walked slowly back to the ship, passing again through the lower end of the down-town Italian district. Roy was instantly attracted by the names on the shop fronts and the objects offered for sale, particularly the oddly-shaped and highly-colored candies and pastry.

"My, but there are a lot of Italians here," said Roy. "Almost enough to make a city by themselves."

The purser smiled. "Do you know what is the largest Italian city in the world, Roy?" he asked.

"Rome, I suppose," answered Roy.

"New York City," said the purser. "There are more Italians here than Rome or any other city in Italy ever saw at one time."

Roy expressed his surprise.

"And there are more Jews here than ever inhabited Jerusalem," continued the purser. "New York has more than 7,000,000 population —more people than most of our states contain— and among those millions are a great number of colonies of foreigners, each large enough to make a good-sized city. Some day we'll make a trip

through the Italian sections and try some Italian cooking."

"Fine," said Roy. "That'll be my treat."

When they reached the ship the purser said good-night. Roy went to the wireless house and caught the weather-report and listened to some of the messages scudding through the air. But when he was ready to retire he was as wide-awake as he would have been at noon, although it was past midnight. The unaccustomed amount of tea he had drunk had made him sleepless. It was a beautiful, warm June night, and Roy went out and sat on the deck to watch the stars and the twinkling lights ashore and in the harbor.

How long Roy sat there he did not know, but it was some time after two bells, and the harbor was as quiet as it ever becomes, when Roy heard the sound of a motor-boat. There was nothing unusual in that and Roy would have given the matter no thought had not the engine suddenly stopped. The sound seemed to have been straight out from the *Lycoming's* pier. Roy at once thought that the little craft was suffering from engine trouble. He wondered where and what it was and if help were needed. Thinking he might be able to see its lights, Roy walked to the stern and sat down on a life-raft. No lights were visible. That did not seem strange, as

Roy's vision was obstructed on either hand by a long pier shed. Near the Jersey shore a ferry-boat, brilliantly illuminated, was drawing into its slip, and Roy almost forgot the motor-boat as he watched the distant ferry.

Then suddenly he sat straight up with a start. The sound of oars came to his ears. They were dipping slowly and gently in the water and ordinarily such a slight sound would have been indistinguishable. But the silent, empty pier sheds acted as sounding-boards and both magnified and reflected the sound. Roy's first thought was that the passengers in the motor-boat had abandoned their craft and were coming ashore in a rowboat. He wondered how they would make a landing, for the doors of the pier sheds were tightly closed. Probably, thought Roy, they see the lights of the *Lycoming* and hope to get aboard her. The dock between the piers was so dark that Roy could hardly see anything in it. He strained his eyes but could not make out the boat. He was about to call out to it, for he was certain that it was in the dock, when it occurred to him that if the occupants of the boat were in distress they would make their presence known. Then, for the first time, he thought of thieves.

Just then the glowing ferry-boat came directly astern of the *Lycoming;* and, although it was on

the other side of the river, the broad reflection of its lights in the water, like a ribbon of gold, showed Roy the boat he was looking for. He could see it but dimly, yet he was certain that the craft below him was the motor-boat itself. Three men were in it. One was carefully propelling it with long oars, and the attitudes of the two others showed that great caution was being observed in the approach.

Roy sat still as an image. He was now fully convinced that the men in the boat were thieves. What they were after he could not conceive. They could not hope to get aboard the *Lycoming,* for a sailor was on watch. Nor could they hope to break into a pier shed. Roy crushed down his desire to raise an alarm and sat silent, determined to discover what they were up to before he made any move. If the *Lycoming* were their object, he would thwart them. He had not long to wait. Very cautiously the motor-boat crept near the *Lycoming*. A long, low whistle was heard and all was still again. Then Roy heard an indistinct, guarded sound, like the careful raising of a window, followed by a low whistle. The motor-boat stole cautiously to the very side of the *Lycoming*. Roy crept to the edge of the deck, in order to keep the boat under observation, and peered down. Distinctly he could see

that one of the lower ports was open and two heads were thrust out. Then the heads disappeared and a moment later a small bale of something came slowly through the port and was seized by the men in the motor-boat. They stowed it away in the boat, then turned again to the open port.

Roy had seen enough. It was time for action. But what should he do? Roy's mind worked like lightning. If he raised an outcry the thieves would start their engine and be off while their confederates on the *Lycoming* would slip back to their quarters. If the thieves were to be caught, it must be done by stealth. But how? In a second Roy thought of the wireless.

Cautiously drawing back from the edge of the deck, he tiptoed rapidly to the wireless house, threw open his switch, and sent forth a call.

"KIN—KIN—KIN—WNA," flashed his signal through the night.

Almost immediately came back the answer, "WNA—III—GA." It was the police boat *Patrol* replying to Roy's frantic call.

"This is the Confederated liner *Lycoming*, pier 14, North River," rapped out Roy as fast as he could work his key. "Thieves in motor-boat taking stuff from confederates in the ship. What shall we do?"

"Watch. Raise no alarm until we enter the slip."

It was no great distance to Harbor A Station and Roy knew that the *Patrol* would be at the end of the slip in a short time. He tiptoed down the ladder and hurried to the officers' quarters. All was in darkness. He tried the captain's door. It was locked. Roy dared not rap on it for fear of alarming the thieves. Mr. Young's door was also fastened. But the second officer's door opened under Roy's hand. The occupant was snoring like a fat hog. Roy shook him by the shoulder.

"Mr. Adams," he said softly. "Wake up. Thieves are at work below."

The second officer was on his feet in a flash. "Where?" he demanded, rushing toward the door.

"Wait!" said Roy. "If we want to catch them, we mustn't make a sound. Some of the crew are passing stuff out of an open port to men in a motor-boat. I've called the police and they will be here in a minute. They'll pull into the slip and catch the men in the boat and we'll grab the men on the ship. If you have a flash-light, put it in your pocket. We'll need it down in the dark hold."

"You watch for the police boat," said Mr.

Adams. "I'll get some sailors and be ready to grab those fellows in the hold."

Roy stole to the deck and cautiously watched the dark forms below. His heart beat so loud he was afraid the thieves would hear him. Seconds seemed like minutes. Time seemed actually to stand still, so fearful was he that the thieves would get away before the police came. Anxiously he kept glancing at the end of the slip, but the *Patrol* did not come. Meantime, the motor-boat was loaded almost to capacity. If the police did not arrive soon it would be too late. Suddenly Roy became aware that a rowboat was stealing along the other side of the slip. It was more than half-way in before Roy discovered it. The boatmen rowed with muffled oars, but came on swiftly. Were they more thieves? Roy did not know what to do. It was useless to call the police again. Why didn't they hurry?

Meantime the rowboat came silently on. It stole along the far side of the slip until nearly opposite the *Lycoming,* then shot toward the motor-boat. Roy was in an agony of uncertainty. He could do nothing but watch and pray for the police to make haste.

Then suddenly a great light flashed from the bow of the rowboat and fell full on the men in

the motor-boat. "Hands up or we'll shoot," came a stern warning.

The rowboat was full of policemen. The thieves hesitated a second, then raised their hands above their heads. The rowboat glided alongside the motor-boat, the thieves were skilfully searched for weapons, handcuffed, and transferred to the police boat.

Meantime an uproar arose within the ship's hold. There were curses, cries, and blows. But the noise soon subsided, for two policemen leaped through the open port and helped to subdue the thieves on board. The latter were dragged to the deck and there recognized as the men who had joined the crew at Galveston. The noise had aroused everybody aboard. Captain Lansford came running down the stairway, inquiring about the disturbance.

"We discovered these men passing stuff out to some thieves in a motor-boat," explained Mr. Adams, "and while the police attended to the fellows outside, we grabbed those in the hold."

Roy, coming down the stairway, heard every word. His heart flamed with indignation. Mr. Adams had not even mentioned him, but had taken full credit for the capture. Roy was not seeking for glory, but under the circumstances he did want the captain to know the truth. He was

almost minded to speak out, especially when the captain said, " Excellent, Mr. Adams. These fellows are probably smugglers, and if that proves to be the case, you have saved me a lot of trouble. I shall remember this."

That was high praise from Captain Lansford, and Roy's face burned with indignation as he listened. Wisely, however, he held his peace. A moment later he was glad he had. The roundsman in charge of the police came on deck and asked for the wireless man. When Roy was pointed out, he said, " Young man, I want to thank you for the good judgment you showed. This is a gang we've been after for months, and they would have given us the slip again if there had been the least alarm. We are obliged to you and your captain ought to be more so."

Roy's face flushed again, but this time for a far different reason. His heart beat with joy. But all the joy faded when the captain, after learning the truth, turned to him and said sternly, " Mr. Mercer, in a case of this sort you should have notified the commanding officer at once. Your failure to do so is inexcusable."

CHAPTER XII

A CLOSE CALL

POOR Roy! No matter how hard he tried, it seemed, the captain would still be dissatisfied with him. To Roy the captain's harsh remark seemed the very essence of injustice. He did not desire praise. He neither expected nor wished any special consideration. But he did desire just recognition of his services. If the captain was truthful in telling Mr. Adams that the capture of the thieves had saved him, Captain Lansford, from trouble, then, it seemed to Roy, the captain should have thanked him instead of reprimanding him. Bitter, indeed, were Roy's thoughts.

Again it was the kind-hearted purser who helped Roy in his difficulty. Like everybody else on board, Mr. Robbins was aroused by the hubbub. He threw on some clothes and hurried to the deck to see what was wrong. There he speedily learned about the capture of the thieves; and Sam, the steward, told him of Roy's part in the affair and what the captain had said to Roy.

The purser waited to hear no more. In another minute he was in the wireless house. "I hear you have done a fine piece of work, Roy," he said. "I congratulate you. Everybody is talking about it."

There was no joy in the face Roy turned to his friend. "Everybody but the captain, perhaps," he sighed. "He gave me thunder again. Is there *anything* that would satisfy him? I've worked my head nearly off on this trip and he will barely speak to me. Now I have helped prevent a theft and if what the captain says is true, I have helped keep him out of difficulty. And what do I get for it? A reprimand before the entire crew."

"How's that?" demanded the purser, as though it were news to him. "Tell me what happened."

After Roy had related the entire incident in detail, the purser said sympathetically, "That does seem rough. But perhaps you don't fully understand the captain's position, Roy. You see, he's responsible for any smuggling that goes on in this ship. If smuggling is done and the revenue officers discover it, the captain may be punished. Naturally, when he is aboard and smugglers are discovered at work, he wants to know about it. You wouldn't want a sailor from

the forecastle sending out important despatches for you, particularly if you were aboard, would you?"

"You bet I wouldn't," promptly answered Roy. "It might get me into a heap of trouble with the Marconi people."

"Well, that's exactly the way the captain saw the matter. What was going on below might have gotten him into no end of trouble with the government. He was here to handle the matter himself. Instead of calling him, a boy with no experience attempts to manage the affair. Do you see how it appeared to the captain?"

"I do," said Roy soberly, "and I don't blame him. But he might at least have asked why I didn't call him. There were reasons why I couldn't."

"Ah! That is another matter, Roy. That is where the captain was too hasty. It is always dangerous to jump at conclusions. But you must remember that the captain's whole training has been to act and act quick. When things go wrong on a ship or the craft is in danger, the captain has to do something and do it quick. When you are half a thousand miles from land and your ship is in danger of going to the bottom, you can't sit around and think or hold courts of inquiry, Roy. You have to do something instantly. The

captain has been doing that for thirty years and it has become a habit. Just wait until we get in some tight pinch. You'll be so glad we have a captain aboard who knows what to do and how to do it quick that you'll forgive all the overhasty things he does in times of quiet."

"I'm glad you told me all this," said Roy. "I still think the captain was unjust, but I feel differently about the matter. And I'll feel more so if they prove to be smugglers instead of plain thieves."

"I don't believe there's any doubt about their being smugglers. Let's go down and see what the police have discovered."

They descended to the deck. The ship's lights had been turned on and the stolen goods hoisted aboard. They were small bales of hemp. A policeman was breaking one of them open. Roy remembered that they had been brought aboard with the very first of the cargo and trucked to the forward part of the ship. Evidently they had immediately been secreted by the four smugglers who had joined the crew and were at work in the hold. When the policeman had torn away a part of the hemp, out rolled a four-gallon can filled with liquid. The screw-cap was cautiously removed and the policeman gingerly sniffed the contents. Then a smile spread over his face.

"It's the real stuff, Rounds," he said, passing the can to the waiting roundsman.

The roundsman sampled the liquor. "The very same," he replied, "and worth a good many dollars a gallon. If the twenty-four bales each contain four gallons, we've captured two good hogsheads of whiskey for Uncle Sam, and saved him a nice little sum of revenue. We'll just take the booze along with the prisoners, Captain Lansford."

"You are welcome to both," said the captain. "We'll make sure there is no more of the stuff aboard. If we find any, I'll let you know. Meantime, I'm obliged to you for catching these fellows."

"You'd better thank your wireless man, Captain. They'd have got away with the stuff sure, if it hadn't been for him. And we'd have missed them again." Then, turning to Roy, the roundsman thanked him warmly. The whiskey and the prisoners were put into the captured motorboat, and towing their rowboat behind them, the police went chugging back to Harbor A.

During the days that the *Lycoming* lay in her dock, Roy spent many an hour in sober thought. He had had a taste of life afloat now, and more than ever he felt sure that he wanted to be a wireless man. He wanted to succeed. He wanted

to reach the very top in his chosen calling. No boy was ever more ambitious, ever more willing to work hard. Indeed, the unusual quality in Roy, the thing that distinguished him from most lads of his age, was the fact that he had early grasped the idea that the road to success is named work.

Always Roy had done things with a will. When he played, he played hard. When he studied, he studied hard. And after he had become interested in radio communication, he had striven hard to perfect himself as an operator. He understood his instruments perfectly. He could make new parts or entire new instruments, if given the materials. He could improvise a wireless outfit out of next to nothing. He could read messages as fast as any human hand could send them, and he could himself transmit with unusual speed. In short, despite his youth, Roy was an unusually skilful wireless man.

But he lacked what most boys lack. He lacked experience of life and the sane judgment that should go with experience. He lacked perspective. He was impatient. He could not always see matters in their true relationship.

It was so now as he meditated concerning his own situation. He forgot that he had been aboard the *Lycoming* hardly a month. He did

not realize that the captain really knew nothing concerning his training and ability. He did not understand that before a man like Captain Lansford could place confidence in a subordinate, that subordinate would have to prove his entire trustworthiness. And Roy had as yet had no real test. His work had so far been all fair-weather work.

But the thing that Roy understood least of all was the captain's actual attitude toward him. He thought that the captain disliked him, that he felt spiteful toward him, that he was purposely trying to humiliate him. Had Roy understood the actual situation he might have felt even worse. That was, that Captain Lansford was hardly conscious that Roy was a member of his crew. He was for some reason prejudiced against wireless, and he had for so many years navigated his ship without the help of wireless that he gave no more heed to the innovation than he would to a new plank laid on the deck. Roy's messages concerning the weather he took lightly. He had a barometer of his own that for thirty years had told him all he needed to know about the weather. Roy's news-letters were more or less diverting. But the captain had gone without the day's news for so many years that he had no hunger for it, as the constant newspaper reader has. It mattered

little to him whether he ever saw a paper or not.

But it did matter about the safety and punctuality of his ship. No mariner alive was prouder of his record, more jealous of his reputation, or more determined to keep up his good work. Every minute the captain had the welfare of his ship in mind. Only those who had proved their ability did he trust. He wanted them to prove it under his own tutelage, and his was a stern way of training recruits.

Thus it was that while Roy was fretting his heart out at what he considered the captain's dislike of him and injustice toward him, the captain was hardly giving Roy a thought. He was tolerating him as he tolerated the wireless aerial swinging aloft; both had been ordered by the owners.

So Roy's situation was far from being the hopeless one he considered it. The dropping of water will wear away even the hardest stone. Continued good service was certain to make an impression on even Captain Lansford's stern nature. And real service to the ship could not fail to impress the captain deeply, since his ship's welfare was the captain's one passion.

Could Roy have realized all this it would have saved him many a heartburn. He did under-

stand, however, that the way to make good in any job was through efficient service. So the captain's course, although it hurt and angered Roy, really spurred him to greater efforts. Some boys, in a similar situation, would have become careless and sullen. Roy maintained his courteous, cheery manner and worked harder than ever. He was on his mettle and was determined that he would force recognition from his captain. And that was the very best attitude he could have taken.

Although it is a long lane that has no turning, it seemed to Roy that he was an extremely long time in reaching the bend in his particular path. Things went on in the same old, uneventful way. He took messages and sent them. He faithfully caught the weather-reports, the storm signals, and the night's news. And all these made about as much impression on Captain Lansford as did the regular turning of one of the piston-rods in the engine room. Roy saw that if he were going to make a dent in Captain Lansford's consciousness, he would have to do something out of the ordinary routine. Think as he might, no opportunity seemed to present itself. That made Roy keener than ever; and he soon reached the point where he spent almost as much time considering the welfare of the ship as the captain did.

Everywhere and always he was asking himself the question, "What can I do to help run the ship?"

The period of unloading and loading passed, and the *Lycoming* started south again, but still Roy's opportunity did not come. He chafed under the placid routine of his life as a captured tiger chafes in its cage.

The turn in the lane was near at hand, however, or at least there was a slight bend directly ahead. That turn came in the form of a fog.

Bright skies and a summer sun looked down upon the *Lycoming* as she bade farewell to New York and sailed through the Narrows toward the open sea. Twenty-four hours later she was buried in a fog-bank. A great, gray, swirling mass of mist came drifting up from the south, cutting off the vision as effectually as a curtain hides a stage. In no time everything was wet and clammy. Rails, rigging, window-sills,—everything was adrip with condensed moisture. A raw, damp quality pervaded the atmosphere. The barometer was falling and the wind rising. To make matters worse, it began to rain. At first the rain was hardly more than a heavy mist. Then it fell in gentle drops. As the wind rose the rain poured downward in torrents, driving in sheets before the fitful blasts of the gale. It

searched out every crack and crevice, and came driving under doors and oozing in under tightly closed window-sashes.

The little wireless house, on the very top of the ship, caught the full force of wind and rain. Water came under Roy's door in such a stream that he had to mop it up with a rag. At first he felt little concern. The sea had not yet risen, and the ship was not rolling much, though occasionally it seemed to stagger before a great gust of wind. Having gone through a pretty fair gale, Roy saw by comparison that this storm, at least as yet, was nothing to feel disturbed about.

But when he looked out of his window, and particularly when he opened his door a moment later, he felt instant concern. The ship was literally swallowed up, buried in the densest bank of fog Roy had ever known. He could not see in any direction. He could hardly make out the ship's nose with distinctness. Under the buffeting of the wind the steamer creaked and groaned. Windows rattled. Everything that was not lashed fast thumped and pounded. The fitful blasts whistled in the rigging and shrieked and howled about the little wireless house, and the roar of the storm almost drowned the sound of the fog-horn. If he could not hear the deep

bellow of the *Lycoming's* great fog-horn, he asked himself, how could those on other ships hear it? Instantly Roy was alarmed.

Long ago, he knew well enough, the captain had jumped into oilskins and boots and sou'-wester and joined Mr. Young on the bridge. Into Roy's mind came a picture of the captain at his post, pacing from side to side of the bridge, standing rigid, like a pointing setter, as he listened with cupped hand to his ear, now on the port side, now on the starboard, and all the while seeking to pierce with his eagle eyes that vast, impenetrable, treacherous mass of fog. In his anxiety Roy pulled on his raincoat and stepped to the deck to listen. He was blinded by the torrent of rain and almost bowled over by the blasts of wind. He clung to the hand-rail and listened, peering intently into the mist. He saw nothing but fog and heard only the hoarse shriek of the ship's whistle and the roar of the wind. He turned back and shut the door. Every moment he felt more fearful, for he knew there must be ships in the vicinity. And now he began to feel grateful that Captain Lansford was on the bridge. Every time he thought of that tall, undaunted figure pacing the bridge, Roy felt safer.

A great desire to help in the battle with the elements came to Roy. But what could he do?

He might call other ships and get replies, but how would that help? They could not locate the *Lycoming* any more than he could locate them. Besides, he didn't know what ships to call, what vessels were in his vicinity.

"But I can find out," muttered Roy. "Maybe the captain would like to know."

When Roy became the *Lycoming's* wireless man, he subscribed for the *New York Herald.* Daily the paper came to the office on the pier, where Roy got it. When he returned from his first voyage, he secured the back numbers that had come during his absence. And from every issue since he became a subscriber, Roy had clipped the shipping news and carefully filed it away. He had had a vague notion that some day these clippings might be useful. Already the time had come, for his clippings contained very complete shipping news from all parts of the world. They would tell him what ships were on the sea in his vicinity.

Roy wondered what his vicinity was. He had been busy and had not followed the progress of the ship. But he knew she had been running at her usual speed, which was about fifteen knots an hour. They had been at sea but a trifle more than twenty-four hours. A little figuring told Roy that the *Lycoming* was perhaps 425 miles

from New York. Taking a chart from his book rack and a ruler, he calculated the distance according to the scale and made a dot on the map. The *Lycoming* was off Cape Hatteras, the worst weather-breeder on our coast and the graveyard of so many noble ships!

Then Roy did a little more figuring. He knew the *Lycoming* was four days from Galveston. At the same rate of speed, he found by measuring his map, the *Lycoming* was perhaps three and a half days from New Orleans, a little less from Mobile, and not three days from Tampa. Key West was a few hours more than two days distant, and Jacksonville not much more than a day. Savannah, Charleston, and Wilmington were within a day's sail. Northern Cuba was only a trifle more than two days distant, and various West Indian ports were but a few hours further, while the Bahamas were some hours nearer. From some or all of these ports and a few others besides, ships might have sailed in time to bring them close to the *Lycoming* now. Roy didn't know the speed of any of the ships that ply along the coast excepting the *Lycoming's,* but the captain would know. From his *Herald* clippings Roy could learn what ships were on the ocean.

Roy got out his clippings and jotted down the

names of coastwise ships sailing from various ports in recent days. He believed most of them would average about the same speed as the *Lycoming*. Calculating on that basis, he found that *El Alba* from Galveston, the *Antilla* from Cuba, the *Algonquin* from San Domingo, the *City of Columbus* from Savannah, the *Alabama* from Port Arthur, and the *Merrimack* from Jacksonville, all bound north, were now due in the neighborhood of Hatteras, while the *Matinicock,* bound from Baltimore to Tampico, and the *Brunswick,* south-bound from Newport News, must be close ahead in the fog. Now he had something to go on.

Taking down his signal book, Roy copied the call signals of each of these vessels. Then he adjusted his receivers, threw over his switch and began to call.

"KKL—KKL—KKL de WNA," flashed Roy's signal.

Again and again he repeated the call, but no answer greeted his ear. Either *El Alba* was not within hearing distance or else her wireless man was not at his post.

Roy tried for the *Antilla.* "KWD—KWD—KWD de WNA," he rapped out. Then amid the roar of the storm he waited for an answer. "KWD—KWD—KWD de WNA," repeated

Roy after an interval. And this time, very faintly, he got a reply.

"KWD de WNA. Where are you?" called Roy. "Are my signals distinct?"

"WNA de KWD," came the reply. "We must be about abreast of Cape Fear. Your signals are very weak."

"We don't need to worry about the *Antilla,* then," said Roy to himself. "Cape Fear must be at least 175 miles south of us."

Again Roy sent a call flashing from his instrument. "KVG—KVG—KVG de WNA."

The *Algonquin* answered promptly. The signals were very faint. "WNA de KVG. What do you want?"

"Where are you?" repeated Roy. "We're off Hatteras."

"We touched at Bermuda and left there three hours ago."

"Good!" muttered Roy. "That's another one out of the road."

Again he consulted his list and sent forth a call. "KFA—KFA—KFA de WNA."

The answer came sharp and clear. "WNA de KFA. Go ahead."

"Where are you?" asked Roy.

"Lost in the fog," replied the operator on the *City of Columbus.* "I don't know where we

are. We ought to be off Hatteras. Where are you?"

"Off Hatteras. Are my signals clear?"

"Very sharp."

"We must be near each other."

The *Alabama* did not answer Roy's call, and he could get neither of the south-bound ships ahead of the *Lycoming*. But the *Merrimack* replied so sharply that she was quite evidently near at hand.

Roy picked up his telephone and called the captain. No answer came. Again and again Roy called. Evidently the telephone was out of order. Roy snatched on his raincoat and cap and rushed through the rain for the bridge. Both the captain and Mr. Young were on duty. Roy thanked his lucky stars that the first officer was there. Going close to him and cupping his hands about his mouth, Roy shouted in the big mate's ear, "*City of Columbus* and *Merrimack* near us. Been talking to both. They're looking for us."

The first officer nodded and crossed the bridge to repeat Roy's report to the captain. Roy waited lest the captain should have an order. The latter merely nodded at the mate and peered into the storm again. Roy went back to the wireless house, clutching a hand-rail and stagger-

ing under the wind. He noticed that the ship was moving at half speed.

Again he called the *City of Columbus.* The reply seemed no sharper than before. But when he signaled the *Merrimack,* the answer fairly crackled in his ears. Evidently the two boats were much nearer to one another.

Roy's heart began to pound furiously. Were the two ships about to collide? Was there anything he could do to prevent it? What should he do if they did? Sound the SOS of course and keep sending it until he sank. That was his duty. He set his teeth. "I'll do it," he muttered. "But there mustn't be any collision. We must prevent it. But how?"

Roy's brow wrinkled. What could he do? "If only I had a direction finder like the one the government gave us during the spy hunt," he sighed, "I'd locate the *Merrimack* quick."

Again he called. "KQM de WNA. How are my signals now?"

"WNA de KQM. Sharper than ever. We must be very close."

"Are you whistling?" asked Roy.

"Sure. Can't you hear us? We can hear you."

Roy laid down his receivers and opened the door. Faintly he heard the booming of the

Merrimack's whistle. Then it came with startling distinctness. A third time it sounded apparently in the far, far distance. From what direction the sound came Roy had not the slightest idea. The fog now muffled, now magnified the sound, which seemed to come from nowhere and everywhere.

An idea flashed into Roy's head. He leaped back to his operating table.

" KQM de WNA," he flashed. " Is there any way you can signal me and blow your whistle at the same time? " he asked.

" Yes," came the answer. " The captain and I will set our watches together and send the two signals simultaneously. I'll send three V's. Listen."

Roy sprang up and opened his door, then leaped back to his operating table. He clamped on his receivers, laid his watch on the table before him, and watched it in breathless expectation.

His heart beat like a trip-hammer. The blood pounded in his brain. His face was flushed with excitement. Somewhere out there in the fog the great steamship was rushing toward the *Lycoming*. She might be a mile away, she might be three hundred yards. The two might crash before ever he heard the signals he was waiting for. Tense, rigid, yet inwardly aquiver, Roy laid his

finger on his key, ready to sound the SOS. Then he listened. For what seemed an age he listened. The wind shrieked and howled. The *Lycoming's* whistle boomed. The windows rattled. The rain beat a tattoo on the roof. But no wireless signal greeted Roy's ears. He could hardly hold himself in his chair. Then it came. "V—V—V," went the signal. Roy noted the position of the second-hand on his watch and waited breathlessly for the sound of the *Merrimack's* whistle.

One second passed—two—three—four—five.

"Mmmmmmmmm!" came the roar of the *Merrimack's* whistle.

"Five seconds," said Roy. "She's almost a mile away. Thank God."

He pressed his key. Once more blue sparks leaped in his spark-gap.

"KQM de WNA. Five seconds difference," he flashed. "You must be about a mile away. Try it again."

"WNA de KQM," came back the answer. "Will repeat. Listen."

Again Roy sat tense, listening for the voice that meant so much. Again time seemed to stand still. The wind roared so loud Roy feared he might not be able to hear the *Merrimack's* whistle. The rain was beating on the roof like the crash-

ing of a thousand drums. His own door was banging as the ship swayed and lurched, and the rain drove in in torrents, but Roy dared not close it. All he could do was to stare at his watch and listen, listen, listen. He hardly dared breathe. He was even afraid that the pounding of his heart would drown out the sounds he was straining every sense to catch.

Suddenly something snapped in his ear. It was the *Merrimack's* signal, loud as a thunderclap. Roy jumped in his seat, but kept his eyes on his watch.

"One second—two ——"

"Boom!" shrieked the *Merrimack's* whistle.

"KQM," flashed Roy with trembling fingers. "Reverse. You're almost on us." Then he dropped his receivers and darted into the storm. Fearlessly he raced across the slippery deck.

"Reverse," he cried, rushing up to the first mate. "The *Merrimack* is almost on us. A minute ago she was a mile away. Now she's less than two thousand feet."

As though to verify Roy's words, the hoarse bellowing roar of the *Merrimack's* whistle rang out deafeningly. The first mate sprang to the indicator and signaled to the engine room, "Reverse—full speed." The captain leaped for the whistle cord and the *Lycoming* shrieked her

warning. As her propeller reversed, the *Lycoming* shivered from stem to stern, heeling far over, while the water about her was churned into yeasty foam. She lost headway and began to wallow in the waves. The captain signaled for the engines to stop.

"Mmmmmmmmm!" roared the *Lycoming's* whistle as she rolled from side to side.

"Mmmmmmmmm!" came back the awful echo from the *Merrimack*.

The two ships were almost on top of each other, yet neither was visible to the other.

"Mmmmmmmm!" "Mmmmmmmmm!" they bellowed at each other.

The captain put his mouth to the first mate's ear. "Can you make out where she is?" he shouted.

"To starboard, I think, sir."

"So do I."

The captain beckoned to Roy. "Tell that ship to stand still while I pass it," he shouted.

Roy tore back to the wireless house. Water ran from him in streams as he sat down at his table.

"KQM de WNA," he flashed. "Tell your captain to stand still while we pass."

"All right—go ahead," came the reply.

Roy scrambled back to the bridge with the

message. The captain turned the handle of the indicator. Slowly the *Lycoming* gathered headway.

"Mmmmmmmm!" shrieked her whistle.

"Mmmmmmmm!" answered the *Merrimack.*

And now there could be no mistaking her position. She was to starboard and close at hand. Slowly the *Lycoming* crept around her, then went nosing her way through the fog again. Once Roy thought he glimpsed the *Merrimack* but he was not sure. When her whistle was plainly astern, Roy again shot a message to her wireless man.

"Close shave," he flashed. "Thanks for your help."

"You saved us from a collision, sure," came back the answer. "Good-bye and good luck to you."

A few minutes later the two boats were miles apart.

CHAPTER XIII

ROY GAINS ANOTHER FRIEND

ON went the *Lycoming,* creeping cautiously through the fog. For hours Roy sat at his instrument and kept in touch with the steamers he had already talked to. Again he went over his newspaper file and searched out all the other ships recorded that by any possibility at all could be near the *Lycoming.* One by one he flung out their call signals. Some he heard at a far distance, some he could not reach at all. From time to time he talked with the *City of Columbus,* but she was still afar off. When he had thoroughly combed the air with his wireless signals, Roy breathed more freely. He felt certain that no steamer was in the *Lycoming's* path or in her immediate neighborhood. The only thing that remained to fear was some silent sailing ship that might suddenly come plunging out of the mist bank. Roy hoped the time would soon come when every ship afloat would be compelled to carry wireless.

Suddenly the fog lifted as mysteriously as it had come. The rain ceased. The wind fell somewhat, but still continued high. Roy looked at his watch and was surprised to see that they had been in the fog-bank for more than eight hours. It was night. Roy had not even been conscious that he had missed his supper. Now he was suddenly so hungry he felt as though he could eat nails. The dining-room was closed. Roy punched the bell for the steward. When the latter appeared, Roy said, " Sam, could you get a fellow a bite to eat? We've been so busy up here that I clean forgot to go to supper."

Now Roy remembered that he was wet. Every garment he had on was sopping with moisture. Puddles of water had gathered under his chair. His operating table was soaked. His chair held a little pool of water. He had been hot with excitement and had not been conscious of his wet clothes. Now he threw off his clammy garments, rubbed himself briskly, and pulled on dry clothes. Just as he finished, Sam returned with a pot of steaming coffee, an enormous quantity of sandwiches, some freshly boiled eggs, and a big piece of pie.

" That sure looks good to me," said Roy, as he reached for a sandwich. " I am much obliged to you, Sam."

"Don't mention it, suh. We all is mighty grateful to you fo' what you done fo' de ship." And Sam disappeared through the doorway, grinning.

Roy's heart leaped with joy. At last he had won recognition. Then he wondered how Sam knew about the occurrence. Perhaps he had only guessed what had happened. Yet Roy knew that could not be. Some one must have reported the occurrence and that some one could be only the captain or Mr. Young. Roy was certain it was not the captain. It did not matter to Roy who told it. Whoever did had considered Roy's service as meritorious or he would not have mentioned it. Roy felt that there was no doubt that recognition had come to him. He resolved to be very careful not to mention the matter himself lest he seem boastful.

After all, Roy asked himself, had he done anything remarkable? He had merely made use of his knowledge of scientific principles. The captain, who had sailed the sea for a generation and faced countless storms and fogs without ever losing a man or a ship, had done a million times more. That thought was both sobering and wholesome. It helped Roy to see matters in their proper light. If anybody spoke to him now about the matter he was in no danger of getting

a " swelled head." Compared to the captain he felt very insignificant indeed.

It was well that these sobering thoughts came to Roy so soon, for very shortly afterward Mr. Young stalked into the wireless house. He had seldom visited Roy there and Roy was happy to see him. He was happier still when Mr. Young walked over to the operating table, studied the instruments intently, and, turning to Roy, demanded, " How did you do that, Mr. Mercer? "

" Do what? " asked Roy.

" Find out how close that ship was? To begin with, how did you know she was near? "

" I was never in a big fog before," said Roy, " but I saw at once that the ship was in a dangerous situation. I wondered what I could do to help. I knew that at least I could figure out what ships were in the neighborhood."

" How? " said the mate, much interested.

" You see," explained Roy, " I have kept a file of the *Herald* shipping news ever since I joined the *Lycoming*. That gave me the names of the ships of any size that have sailed from various ports in the last few days. I made a list of them. Here it is."

Roy handed the list to Mr. Young, who looked at it with interest.

" Then I tried to figure out which ones would

be due in our neighborhood. I didn't know how fast any of them traveled, but you can bet your boots that hereafter I'm going to learn the speed of every ship we pass. I figured they would all go at about our rate—fifteen knots. Then I worked out the distances from all the ports south of us, including Cuban and West Indian ports, and reckoned what ships should be near us. When I had found that out, I began calling them. Only one of them seemed to be very close—the *Merrimack.*"

"How could you determine that?"

"Well, I knew we were off Hatteras, and most of the ships I talked with knew where they were. But the *Merrimack* was lost in the fog and her wireless man didn't know where he was."

"Then how did you know she was near?"

"By the wireless signals. They were so loud and distinct that I knew she was close at hand."

"But how could you tell that she was five thousand feet away at one time and a little later only two thousand feet? That's what puzzles me. I never heard of anything like it before."

"It was this way," explained Roy. "When I got into touch with her wireless man, he asked if we could hear the *Merrimack's* whistle. He said they could distinctly hear ours. At least he sup-

posed it was ours. I listened and heard the whistle, but one time it seemed near and again far off. I couldn't tell from what direction the sound came."

"Correct," said Mr. Young. "We heard it, too. Fog does the strangest things to sound. That's what makes it so dangerous for ships. The officer in charge can usually hear another ship, but sometimes he can't for the life of him tell what direction the sound comes from."

"Well," continued Roy, "it occurred to me that if the *Merrimack's* whistle and her wireless instrument could signal at the same instant I could tell how far away she was."

"How?" asked the first mate, more interested than ever.

"Why, you know, Mr. Young, electricity is instantaneous, while it takes sound a second to travel a thousand feet. If the two signals started together, I could time the difference between their arrivals. It was simple enough if only the *Merrimack* could send the signals right."

"Now what do you think of that?" cried the mate. "How did you manage it?"

"The *Merrimack's* wireless man did that. I asked him if he could. He said he would talk to the captain and they would set their watches together and each signal at the same instant. All

I had to do was listen to the signals and catch the time between them."

"Well, I'll be darned!" ejaculated the first mate. "I never heard anything like it. Is that what they teach you at the radio school?"

"I've never been to one," said Roy. "All I know about wireless I picked up myself."

The first officer regarded Roy with astonishment. "Well, you're a pippin," he said.

Roy laughed. "A little while ago," he replied, "I thought I would soon be a fish. When the *Merrimack* signaled a second time and there was only two seconds' difference between her radio and her whistle, I thought it was all up with us. I signaled her to reverse and raced out to you on the bridge. You know the rest."

"Mr. Mercer," said the first mate, as he rose to go, "I'm going to tell the captain every word of this. He has never thought very much of wireless, because he always said, 'What good is it? It won't tell you where you are, or where the other fellow is. And when you're in a fog those are the only things a skipper wants to know.' But it seems that in the right hands it will answer both questions."

"Don't be in a hurry," said Roy, trying to change the subject. "Have a bite to eat. Sam just brought me this stuff. The coffee's piping

hot. You must be tired to death. You've been on the bridge more than twelve hours straight."

"Thanks," said the mate. "A cup of hot coffee and a sandwich *would* taste good, if it won't be robbing you."

They sat and talked for half an hour, munching sandwiches as they conversed. When Mr. Young finally went to his own quarters, Roy felt as though they had been friends for years. Their brief comradeship in danger had made their friendship real. Roy felt this so keenly that as his big visitor rose to go, he said, "I wish you would call me Roy when we're alone, and not Mr. Mercer. You know I'm not used to being called Mister yet and I'd rather not have my friends use that handle when they talk to me."

"All right, Roy. Good-night and my hearty thanks for your help to-day."

CHAPTER XIV

A TRIP TO THE OIL FIELDS

WITHOUT further incident of note, the *Lycoming* ran on down the Atlantic coast, passed through the Florida Straits, and bore straight across the Gulf to her destination. When she was safely docked and the process of unloading well under way, the big mate one day mounted the ladder to the wireless house.

"Good-morning, Roy," he said. "How would you like to take a little trip over to the oil fields? I have to go over there for the captain and I'd be glad to take you along."

"How far is it, and how long will it take?" inquired Roy.

"About sixty miles, I suppose. It will likely take us two hours to run over."

"Thank you," said Roy. "I'll be mighty glad to go. I have never seen an oil-well."

They ferried across the bay to Port Bolivar and there took a train for the oil fields. Soon Roy was very glad indeed that he had come. Everything was different from what he was ac-

customed to at home. The country was low and level. Nowhere was there an elevation that could be called a hill. In the open spaces he could see for miles and miles over the flat land. His view in this direction was almost as unlimited as it was on the ocean. To Roy, accustomed as he was to hills and mountains, this flat land seemed monotonous and uninteresting. In places he saw herds of cattle on these open reaches, and cowboys galloping on horseback. For a considerable stretch Roy and his comrade rode over the bare, level prairie. Then they came to some bits of woodland.

"I never realized before," said Roy, "how beautiful trees are. Look at that fine grove over there."

"Down here they call a grove like that a motte," rejoined Roy's companion with a smile.

"A what?" ejaculated Roy in astonishment.

"A motte. It means a little grove of trees in a prairie."

"Well, that's a new one to me," said Roy.

"You'll run into lots more things that seem strange," said the mate. "You know you're a long way from home. If you were in Europe, you'd be in a foreign land at this distance from your home."

"Well, I see something already that's new.

What ails the trees in that 'motte'? They look as if somebody had hung veils or something on them."

The first officer laughed. "You aren't so far out of the way, Roy," he said, "only what you see is moss, and it was hung there by nature."

"Moss!" exclaimed Roy. "Why, I never saw any moss like that. The stuff must be a yard long."

"Yes; and it's moss. They call it Spanish moss, and sometimes it is known as pirate's beard. It often grows three feet long. In this part of the world the trees are festooned with it. After a while we'll take a walk through a wood where it grows thick, and you'll agree with me that it is very beautiful."

The train passed a number of ranch-houses, or rather a number were visible at a distance. They were little, low structures, painted a dazzling white. There was little or no shade about them, and it seemed to Roy as though they must be unendurably hot, out there on the open prairie with the blazing Texas sun beating down on them. Several of these ranch-houses had curious, low trees near them that spread out horizontally like enormous umbrellas. They caught Roy's eye at once.

"What are those funny trees?" he demanded.

"Those are China-trees, Roy. They have quantities of colored berries on them in the winter season, the juice of which is intoxicating. Young robins often eat the berries and get drunk. Then they can be knocked over with a stick, and, in consequence, many poor young robins go into potpies down here. It is said that a robin that has once been intoxicated by the berries will never touch them a second time, but I don't know how true it is."

The railroad crossed several small streams. Along the course of each were luxuriant growths of trees. Some of these were quite unfamiliar to Roy. One species in particular caught his attention because of its dark, glossy foliage.

"That is the live-oak," explained Mr. Young. "It is really an evergreen, although it has leaves like our deciduous trees."

In about two hours the train drew near the oil fields. Mr. Young did not have to tell Roy where they were, for Roy's nose told him very plainly. The air was redolent with crude oil.

"Phew!" cried Roy. "That's pretty strong. I don't believe I would like to live in such a smell."

"You'd soon get used to it," replied the mate. "A person can get used to anything, apparently, though I've sometimes wondered how anybody

could ever become accustomed to the smell of the factories where they turn fish into oil and fertilizer. I was in one once near the Delaware Breakwater."

"If it smelled any worse than this," laughed Roy, "I'm glad it's near the Delaware Breakwater. That's quite close enough for me."

When they got out of the train they walked toward the oil field. Roy had seen pictures of the Pennsylvania oil fields, which were hardly a hundred miles from his home. He expected to see a derrick here and a derrick there, and so he was utterly amazed at what he now beheld. Oil-derricks rose before him in dense masses. From a distance it seemed to Roy that they were as close together as trees in a forest. There were hundreds and hundreds of them. Instead of being spread out all over the region they were crowded together. Mr. Young explained that this was because the oil pocket was in that particular neighborhood. As they drew nearer, they could see the pumps at work, the walking-beams going rhythmically up and down.

But what amazed Roy perhaps even more than the mass of derricks were the colonies of tanks to hold the oil. In every direction were clusters of tanks. These were great, circular structures of steel, each holding 30,000 gallons or more. Roy

noticed that each group of tanks was laid out with mathematical precision, like checkers standing at even distances from one another on a checker-board. The idea was emphasized by the fact that each tank had a dike or low wall of earth thrown up about it in the form of a great square, like the lines in the checker-board. Roy asked why the dikes were there.

" Sometimes an oil-tank catches fire," said Mr. Young, " and the burning oil gets out. If there is a dike about a tank the burning oil can't reach the tanks next to it and set them on fire."

" It's a good idea," commented Roy.

" If ever you see a tank afire, you'll think so," said Mr. Young. " Sometimes a tank explodes and showers burning oil all about. A tank will burn for days, and the entire field is endangered as long as the blaze lasts. Everything about an oil field is soaked with oil, you will notice, and if a fire spreads, it may sweep over the entire field. That has happened more than once. Whenever a tank gets afire, they begin at once to pump the oil out of the tanks around it."

Presently Roy caught sight of a great string of tank-cars. " Jiminy crickets!" he exclaimed. " I didn't know there were so many oil cars in the country. Why, there must be hundreds of them."

"I suppose there are," answered Mr. Young. "Do you see those racks running along the tracks just beside the cars? Those are huge oil pipes. They connect with oil-tanks somewhere. When a train is to be filled, a connecting pipe is run out to each tank-car and the pumps are started. They can load a hundred cars as easily as one."

Presently a man on a buckboard dashed toward them, crying, "Here's your hot tamales. Just fresh out of the kettle."

"Have you eaten a hot tamale, Roy?" asked Mr. Young.

"No," said Roy. "I didn't know they were things you ate. I thought that was just a slang term."

Mr. Young laughed and said, "We'll try some. Then you'll know what that bit of slang means."

He motioned to the vender, who raced over to them and pulled his horses up short. They were bronchos and interested Roy. They were small but apparently tough and wiry. Mr. Young bought two tamales and handed one to Roy. The latter looked at it quizzically. He didn't know whether he was the victim of a joke or not; for what Mr. Young had given him was a piece of a corn-husk. It was piping hot, and was wrapped around something soft.

"Open it," said Mr. Young.

Roy carefully unrolled the husk. Within was the steaming tamale. It was a little cake of meal and minced meat, cooked in the husk. Roy took a bite. There were tears in his eyes before he got it down.

"Great Cæsar!" he cried, "what's in that?"

"Corn-meal, minced meat, cayenne pepper, and perhaps some other things," said Mr. Young.

"Principally pepper, I think," said Roy, sucking in fresh air to cool his burning mouth. Then, after a moment, he laughed. "I certainly do know what that slang term means," he said. "Whoever invented that dish, anyway?"

"The Mexicans," said Mr. Young. "There are a lot more Mexican dishes you may want to try while you're down here—enchiladas and chili con carne, for instance."

"Not for mine," said Roy ruefully. "At least not if they are anything like hot tamales."

"They are," laughed the first officer, "only more so. That's one thing I never could understand—why people in a country as hot as Mexico should want to eat food as hot and greasy as the Mexicans like it, for they use about as much lard as they do pepper."

"I'm glad I'm not a Mexican," laughed Roy.

They walked through the oil field to the head-

quarters of a drilling company. Mr. Young transacted the business on which he had come. Roy, meantime, wandered about, watching operations. He was particularly interested in the digging of a great, round hollow near by. Hundreds of men were at work in it, and scores of mules. With scrapers the men were hollowing out a great circle and dragging the scooped-out earth up in a mound that ran around it.

"What are they doing?" asked Roy when Mr. Young rejoined him.

"Building an earthen tank for oil," replied the mate. "They will lay planks to form the circular wall and back that up with the earth in the mound. The roof will be of boards. The tank will hold several hundred gallons and will be pretty much under ground. It's a cheap way to build a reservoir and it makes a pretty safe receptacle. Now we'll go look at that bit of woods I mentioned."

They left the oil field and walked toward a woodland that was visible at some distance. It proved to be extensive and lay along a little stream of water. Roy was instantly attracted by the wonderful growths of pirate's beard. It was everywhere. In great festoons it hung from the trees, giving the woods a misty, hazy look. Roy got hold of some and examined it. The

moss was like coarse, gray-green fibres more or less loosely grown together. It reminded him of an old man's beard and he thought it was well named.

He admired the live-oaks with their picturesque growth and beautiful leaves, so green and glossy. Here and there great bunches of mistletoe with its yellow-green stems and leaves caught his eye. But what pleased Roy most were the beautiful holly-trees. There were none in his part of the country, but he had seen holly branches in the stores at Christmas time and he instantly knew what they were. There were no red berries on the trees at this season, but they were beautiful even without the berries, with their smooth, gray trunks that reminded Roy of the beeches in his own neighborhood, and the glossy, dark green leaves, with their prickly edges. There were many other strange and interesting growths, and Roy went back to the train feeling that he had been richly repaid for his journey.

The return trip was made without incident and in due time Roy and his friend found themselves back on the *Lycoming*. Captain Lansford nodded to them as they came aboard and inquired pleasantly if Roy had enjoyed the trip. Roy answered briefly, then went to the wireless house. His heart was beating high. The captain had

never said one word to him concerning the fog and the part Roy had played in helping to prevent a collision, but ever since that event he had seemed different to Roy. His greeting now made Roy feel that perhaps at last he was making some headway in his struggle to win the captain's good-will. At any rate, he felt sure that the captain no longer disliked him.

CHAPTER XV

SOS

BUT Roy was soon to find that the captain's favor, like success, could be gained by no royal road. It was true that the captain's feeling toward Roy was perhaps altered somewhat, but not nearly so much as Roy either hoped or at first believed. The captain treated him less coldly than before, but there was nothing like cordiality in his manner toward Roy. Distinctly the captain's attitude was like that of the man from Missouri. He still wanted to be shown.

It was a long time before Roy grasped the idea that the captain was still skeptical concerning the desirability of wireless. But as time and distance from the *Merrimack* incident gave him a saner view of the affair, he came to understand the captain's point of view. That was that though Roy had possibly been helpful in averting a collision, it did not by any means follow that if Roy had not been aboard a collision would have occurred. The men on the bridge plainly heard

the *Merrimack's* whistle. They knew she was near and coming closer. They were straining every nerve and sense to prevent an accident. All that Roy had told them that they did not already know was the fact that the *Merrimack* was within two thousand feet. And they might have guessed even that. When Roy, after much deliberation, had reasoned this out for himself, he saw his own part in a new light. It seemed to him now very commonplace and inconsequential. Perhaps he now erred as much in this new opinion as previously he had erred in overestimating his accomplishment.

But at any rate his new point of view helped him. More and more, as he saw new crises arising, now over delays in loading, now over breaks in machinery or equipment, now through storms or other superhuman causes, and saw the captain rise superior to one after another of these obstacles, he got his true bearings. He understood what a really insignificant place he occupied. For thirty years the captain had wrestled, and wrestled triumphantly, with every form of obstacle known to the mariner, while he, Roy, had sailed the seas hardly more than thirty days and knew nothing of the thousand difficulties of navigation.

It was fortunate indeed for Roy that he could

thus come to understand his true situation. It prevented him, on the one hand, from becoming conceited, and so ruining his chances of ever getting ahead; and, on the other hand, it kept him from growing sullen and becoming indifferent in his work. And while it could hardly have been called encouraging, it was far from being discouraging. For Roy's entire experience of life made him believe firmly that if he worked hard enough and used his brains along with his hands, nothing could keep him from succeeding. The net result of all his cogitations, therefore, was to make him grit his teeth the tighter and vow in his heart that nothing should prevent him from winning out. He would do perfectly every task that could possibly be required of him.

Week after week went by with no noticeable alteration in the captain's attitude toward Roy. The captain spoke to him politely but without cordiality. He never came to the wireless house and he never invited Roy to the bridge, or the wheel-house, or his own cabin. He sent no messages other than those required by his work. He never asked for weather-reports or storm warnings, or the nightly news-letter, though Roy unfailingly laid these before the captain. But whether the latter welcomed them or took any interest in them Roy could not discover.

All the while Roy continued to pick up useful information. He got acquainted with every member of the crew. He learned exactly how a ship is coaled and how the coal is stored in the bunkers. Often he visited the fire-room and the water-tenders explained to him exactly how fires should be handled. He watched the crew load and unload the ship and soon found that if the cargo was to be stowed in such a manner that it would not shift in a storm and endanger the ship, it must be packed with fine skill. Harder than ever he tried to make himself agreeable to the passengers, for he bore ever in mind the fact that it was his duty to get as much business for the company as he could.

Meantime, Roy matured rapidly. All his pleasing frankness and his jolly good nature he retained. More and more he grew dependable. Before many weeks passed everybody aboard the *Lycoming,* from the captain down, understood that if Roy said he would do a thing or if he were ordered to do a thing, that thing would be done, and done promptly and well. Roy hardly realized what a reputation he had gained. And even if he had, it is hardly likely that he would have appreciated the full importance of such a reputation. Though he knew in his heart that any real success must be based on just such a

reputation for trustworthiness, he was constantly on the lookout for an opportunity to prove his merit in ways more striking. The opportunity came to Roy far sooner than he ever believed it would and in a way it would have terrified him to contemplate, could he have foreseen all that lay before him.

Early September found Roy on his last voyage aboard the *Lycoming*. At least he believed it to be his last. The three months' period during which a possible successor was being prepared for his position was almost at an end. The captain had given no indication that he thought more highly of Roy or that he desired him to continue at his post. Neither had he ever mentioned, after their first interview, the probability of a successor for Roy. But Roy understood that he would not. The new man would simply come aboard and Roy would be told to report to the Marconi office. What would happen to him then he did not know. He hated to think of the day when this would happen, for it might mean the end of his career as a Marconi operator. More than that, it would certainly mean an end to his relations with the purser and the first mate and all the other friends who had been so good to him on the *Lycoming*, and of whom he had become so fond. So it was with a rather heavy

heart that he put to sea early in September on what he believed would be his very last trip aboard the *Lycoming*. It was hard to keep a stiff upper lip and to continue smiling. But Roy took a grip on himself and made the effort.

Apparently the journey was to be as uneventful as the last few trips had been. Two days passed without incident. Then the barometer began to fall. Roy did not know that, but he had grown sufficiently weather-wise to know that a storm was brewing. At first he thought little of it. The captain's face, as usual, was inscrutable, but Mr. Young looked sober. When Roy noticed that he began to feel concerned. Then he remembered that it was the ninth of September—the very period of the year when the worst storms visit the Gulf.

The *Lycoming* was already far down the Florida coast. The Bahama Islands were just ahead. The passage between Palm Beach and the Great Bahama Island was hardly sixty miles wide—a mere nothing in a storm, should anything go wrong. Only a few hours distant were the Florida Straits, with their treacherous currents and their far-flung string of keys, like a chain to catch the unwary mariner, with Key West like a pendant at the end of the chain, and the Dry Tortugas still farther west. Perilous indeed

would be the position of any ship overtaken thereabout by a hurricane.

Roy inspected his apparatus, made sure his telephone was in working order, and got ready for an emergency. Late in the day Roy went on the bridge to talk to Mr. Young, who was in command. Already there were signs of the coming storm. The wind was soughing ominously and rising steadily. The sea was beginning to heave. The *Lycoming* rolled unsteadily. Roy thanked his lucky stars that he had gotten his sea-legs and could stand rough weather without being seasick. He might be needed and he wanted to be fit if he were.

"What do you think of it?" asked Roy.

"Looks bad to me," said the first officer. "The barometer is falling fast. Something is sure to come out of it. And now's just the time of year when the worst storms hit the Gulf. If we can get past the Dry Tortugas before it strikes us, we'll be all right. We'll have the entire Gulf before us then."

"What does the captain think of it?" inquired Roy.

"He never says much about what he thinks," replied the big mate, "but he's had his eye on the barometer all the forenoon, and he's asleep now, so it's evident what he thinks."

"You mean he thinks there's nothing to worry about?"

"I mean just the contrary. If we do have a bad storm, the captain will be out here on the bridge until it's over or until he can't stand any longer, and he's resting up."

Roy returned to the wireless house, feeling vaguely uneasy.

Palm Beach was passed early in the afternoon. Roy saw that even at her best speed the *Lycoming* could hardly reach the Straits before midnight, and it would be close to ten hours more before they were safely past the Dry Tortugas. Twenty hours must elapse before they were through the danger zone and had the wide Gulf before them. He hoped that the storm would hold off that length of time.

Sunset saw little change in the weather. Wind and wave were far from boisterous. The thing that troubled the first officer was the way in which the barometer still fell steadily. Late in the day he gave an order to make everything fast. Roy, chancing to come out of the wireless house, saw sailors below battening down hatches, lashing every movable object fast, and otherwise making things tight. He had never seen that done before. At supper Roy noticed that the waiters were serious and preoccupied. Somehow

a distinct air of apprehension seemed to be abroad. And yet there was nothing to be alarmed at excepting the steady fall of the barometer.

Roy went directly from the supper table to his instrument and began searching the seas for ships. The atmosphere played all sorts of tricks with his wireless. One minute he could hear nothing and the next he would catch part of a message from New York. He got into touch with the Mallory liner *Comal.* She was anchored at Key West. He heard the steamer *Valbanera* and talked with her. She was off Havana. A terrible storm was raging there and the ship's master was afraid to try to enter the harbor. So he had put to sea again. Once Roy heard a message sent by the *Empress* to some other ship. The *Empress* had left Havana for Galveston, a new schedule having gone into effect.

" The captain will see his brother this voyage," thought Roy. " It will be a happy trip for him."

He tried to reach the *Empress,* but call as he would, he could get no response. He talked with a number of shore stations, but there seemed to be nothing out of the ordinary to report. The sea was not very rough and the chances of getting nicely through the Straits seemed good. Yet Roy could not help feeling apprehensive and de-

pressed. He knew the Gulf was in a tumult off Havana. Could he have seen the barometer and the sober face of Captain Lansford, who had now taken command, he would have known there was good cause to feel apprehensive.

Just when the storm struck the *Lycoming*, Roy never knew. Hour after hour he stuck to the wireless house, now listening in, now calling, calling for ships he knew ought to be within call, but which he could not reach. So intent was Roy upon his work that he did not hear the rising wind or notice the increasing violence of the waves, until suddenly the *Lycoming* staggered and heeled far over. The sudden lurch almost threw Roy out of his chair.

He pulled off his receivers and was instantly aware that the wind was shrieking about the wireless house with terrific force. The windows rattled, the door creaked under its pressure, and the entire superstructure of the ship seemed to shiver. He could hear the groaning of masts and derricks, of life-boats and rafts lashed to the deck, of a hundred objects here and there. He thanked providence the mate had had things made fast. The roll of the rain on the roof was like thunder. When Roy rose to his feet he found he could not stand without holding to something. At once he knew he had never been in such a storm as this.

But it was not until he opened the door of the wireless house that he understood how violent the storm really was. The instant he turned the latch the door flew inward, striking him with great force. The wind rushed in with a deafening shriek and almost flung him on the floor. The rain beat in in torrents. The roar of the elements was beyond description. It was a deafening welter of sound. Like demons howling in agony the winds roared and shrieked. The rain beat a terrific monotone on deck and roof. The crests of the waves broke before the wind with a hissing roar like the thunder of a thousand Niagaras. The rigging rattled. Woodwork everywhere creaked and groaned. Stays and guy lines beat a very devil's tattoo under the awful blasts. All about him, papers, despatches, records, clothes, were whirling like dust before a swirling wind. With all his might Roy strove to shut the door. He was not able to do it. Then an awful lurch of the ship flung the door violently shut and threw Roy against the opposite wall. His chair flew across the room with a crash. The remainder of the furniture was fastened to the floor.

Roy picked himself up, righted his chair, and attempted to collect the articles scattered by the wind. Now he realized how the sea had risen.

Down, down, down, the ship seemed to go. It lifted as suddenly, sending Roy staggering against the wall. Now it lurched this way, now that. Never had he supposed a great ship could be pitched about as the *Lycoming* now was. Far to one side it tilted. As suddenly it shot far to the other side. Then it pitched forward. Now it seemed as though it was trying to stand on its stern. Suddenly it dipped sidewise, falling, falling, until Roy cried out in very fear. He was sure the ship was turning over. Nor was his the only heart that stood still with terror. White-faced the man in the pilot-house clung to his wheel.

"Great God!" he muttered. "A sixty-degree roll," and waited breathless, like Roy, for the ship to right itself.

Down in the stewards' quarters the negroes were gathered together with blanched faces, some praying, some moaning. Amid all this welter of wind and wave, Captain Lansford stood on the bridge, holding to the rail like grim death, the rain falling on his oilskins in torrents, the blasts tearing at his garments, as he peered through the blinding spray and listened to the tumult of the tempest, unmoved, immovable, a man of iron with a heart of steel, grappling with a tempest.

It was the thought of the captain that brought courage back to Roy. As the *Lycoming* hung for what seemed an age at that terrifying angle, Roy lost his grip on himself. For perhaps the first time in his life, he felt physical terror. An awful fear gripped his soul. His heart actually stopped beating. The blood rushed from his cheeks till they were like chalk. He seemed paralyzed. He could not even cry out. He was completely unmanned. Death was so near at hand and the thought of it came so suddenly that it overpowered him. Then Roy thought of the captain. He knew he was out on the bridge. He knew he was facing the awful wind, the driving rain, the blinding spray, the danger of being washed overboard, and that there he would stand, hour after hour defying death and the elements to bring the *Lycoming* safe to port.

"Thank God for Captain Lansford!" cried Roy. "He'll win through. He'll bring us safe to port. He's never failed yet. He won't fail now. Thank God, Captain Lansford is in command."

The color flew back into Roy's cheeks. His heart began to pound bravely. His pulses beat with courage.

"We've got to help him, every one of us!" he cried aloud. "What can I do? What can I do?"

A still, small voice answered, " Your duty."

" My duty," said Roy aloud, " is right at that instrument. That's my post as long as this storm lasts."

He shoved his chair across the room, sat down at his desk, and clamped the receivers to his ears. He was just in time to catch a message. The United States Weather Bureau at New Orleans, seven hundred miles away, was sending out a storm warning to Louisiana coast towns and other places along the Gulf which the hurricane had not yet reached. " Tropical disturbance in southeastern Gulf moving northwest will cause increasing northeast winds."

According to rule, Roy jotted down the time the message was received. It was just ten o'clock.

" I wonder if I should give this to the captain," said Roy, with a grin. " He might like to know there's going to be a storm."

Then his face became sober enough and he settled to work. For long periods he listened for voices in the storm. Again and again he flashed out messages to ships that he thought should be near, but he could reach nobody. After a time he got an answer from the *Comal,* with which he had talked before. She was still fast to her moorings in Key West, but in imminent danger

of being torn away. Even as Roy talked to her it happened.

"We're loose," flashed her operator to Roy, "and blowing ashore. I've got to stand by to send messages for the skipper. Good-bye. Good luck to you."

There were tears in Roy's eyes as he jotted down the message. "Wishing us good luck while he's going perhaps to his death," muttered Roy. "He's a man—as every wireless operator ought to be." And while he listened for other signals, he sent up a silent prayer that when the pinch came he would be equally brave.

Meantime the ship staggered on. With the stars blotted out, with the seas mounting higher and higher, with the wind blowing at hurricane force, it was impossible to tell what speed the ship was making, whether she was being blown far from her course, or where she was. Yet the captain must decide all these things and decide them right, if the *Lycoming* was to come through the storm in safety. The most hazardous part of her journey still lay ahead of her. It would be doubly hazardous now because the wind would be abeam when she turned west to pass through the Straits.

In the early hours of the morning the motion of the ship seemed to alter. For Roy, on the

very top of the vessel, every movement was intensified. At once he was conscious of this altered motion. Before, her movements had been mostly violent forward plunges. Now she rolled fearfully from side to side. First she rolled far over to port. Then she dipped at a terrifying angle to starboard. Roy could not understand it. After a time it came to him that the ship was wallowing in the trough of the waves. Had something gone wrong? Had the steering-gear broken? Was the ship out of control and drifting toward land, even as the *Comal* had done? These and a hundred other questions Roy asked himself as he sat breathless at his operating table. Should he call the bridge to see if the captain wanted the SOS sounded? Small chance they would have of getting help in such a storm, Roy told himself, when it was all any ship could do to keep herself afloat, let alone help another. All the while Roy was conscious of the regular vibration of the ship's engines. Presently it occurred to him that if the ship were unmanageable the engines would probably be stopped. Then he knew what was wrong. The ship had turned west. They were in the Straits. The waves were catching the *Lycoming* abeam. The pinch had come. Could the *Lycoming* survive it?

Hardly had Roy asked himself the question before there was an awful roar. With a noise like a thousand thunders a mighty sea struck the *Lycoming* broadside and poured over her decks. It was the first sea that had come aboard. By intuition Roy knew what had happened. His thoughts reverted to the day when he had expressed surprise, almost incredulity, at the purser's statement that waves sometimes swept the deck. Thirty feet, the purser had said the waves sometimes rose. He wondered how high this one was. He knew it was a monster. He wondered what the sea looked like with waves like that. He wished it were day so he could see. Then he was glad it was not day. He was afraid he would be afraid. Whatever happened, he did not want to be a coward. The thought of the captain on the bridge heartened him. It was wonderful how the bare thought of that fearless man restored Roy's courage.

On and on plunged the *Lycoming,* ploughing through cross-seas, wallowing between mighty waves, fighting her way through a welter of water such as Roy had never dreamed of. Hour by hour, the force of the wind increased. The seas mounted higher. The ship labored more heavily. Time and again great waves swept over her. Her bulwarks were smashed. Rail-

ings and woodwork were torn away. Iron stanchions were bent like wire. The bridge was battered. The waters clawed at her hull and the winds tore at her superstructure. But unflinching, unyielding, undaunted, gripping the rail with grasp of iron, the captain stood on the bridge, master of wave and wind.

Never had Roy welcomed daylight as he welcomed the dawn next morning. All night long he had sat at his instrument, waiting, waiting, waiting for the moment when he might be needed. A hundred times he had pictured the sea to himself; but his wildest picture was tame in comparison with the actual scene as revealed by the light of dawn. The confusion of the waters was beyond conception. Mountain high the seas were piling up. Under the awful blasts of wind they rushed forward like frenzied demons, frothing, seething, hissing, roaring, climbing up and up until the hurricane tore their tops away, flinging the spray like tropic rain in blinding sheets. Again and again Roy watched with bated breath as a monster wave bore down on the ship, rising higher and higher, until it plunged forward on the *Lycoming* with a crash, shaking the sturdy ship from stem to stern. The roar of the elements was deafening. Beyond all power of imagination, the tempest was awful.

Hour by hour the stanch vessel fought her way through the maelstrom. The wind tended ever to blow her toward the keys and shoals that menaced on the north, but the man on the bridge kept pointing her into the wind. No land was visible. Neither was the sun. It was impossible to take a reckoning and determine the ship's position. Yet with that instinct born of years of experience, the captain allowed for the drift, gauged the ship's speed, and kept her on her course. Noon should normally have seen her far past the Dry Tortugas. It was hours later when the *Lycoming* actually reached them. For a few minutes the rain ceased and the air cleared. Again and again the man on the bridge swept the horizon with his glasses. Finally he glimpsed land. That one glance told him all he wanted to know. He had seen a landmark on the Dry Tortugas. He knew he was only slightly off his course. At once he rectified his position. The wide Gulf was now before him and, barring accident, he knew he should come through safely. But he was traveling with the hurricane. He did not run through it, but advanced with it. So the storm continued hour after hour without abatement.

Late in the day, Roy sought food. If he had thought the storm terrible, within the shelter of

the wireless house, he had no words to describe it now as he stood in the open, exposed to the elements. Clutching the rail with all his strength, bending low before the gale, Roy advanced foot by foot. He was almost afraid to go down the ladder lest he be pitched headlong into the hissing seas. A step at a time he descended, hugging the ladder tenaciously. Then, crouching close to the superstructure of the ship, he fought his way against an awful wind until he reached a door. In another second he was inside, trembling all over from the violence of his efforts and his close contact with the storm. When he remembered that for twenty hours the captain had stood on the bridge, facing that awful wind and those crashing seas, he was speechless with admiration. It was more than admiration. It was almost worship. A burning desire came into his heart to do something in return for the captain.

Roy got some food and the steward provided him with a little bag of provisions so that he need not leave the wireless house again until the storm was over. Then Roy crept back up the ladder and flung himself on his bed.

He slept for hours. During that time the ship staggered on. All day and all night the hurricane raged, and all the next day and the next night. For forty-eight hours Captain Lansford

never left the bridge. Then, utterly exhausted, he staggered to his cabin and dropped asleep, while Mr. Young took command. For twenty-four hours the captain lay like one dead. Then he returned to the bridge and again took command. During all that time the storm continued without abatement. The seas climbed higher every hour under the terrific lashing of the tempest.

Roy spent long hours at his post. Indeed, he hardly laid aside his receivers except when he snatched a little sleep. He got into touch with the *Comal* again and learned that she had been beached by the wind, but that no one was hurt. The British oil tanker *Tonawanda* had been scuttled to save the *Comal.* The steamer *Grampus* and the schooner *E. V. Drew* had gone down in the harbor, while Key West itself was prostrated. Three hundred and twenty houses, together with stores, churches, and other buildings had been demolished. The wind had reached a velocity of 110 miles an hour. From other stations Roy learned of other damage. The town of Gould was virtually razed. The wireless station at Fort Taylor was wrecked. Towns all along the eastern Gulf shore were badly damaged by the awful wind. When Roy learned that the *Valbanera* had gone down with all on board,

his face was very sober indeed. But for Captain Lansford, thought Roy, the *Lycoming*, too, might now be somewhere on the bottom of the Gulf.

Another day passed. The hurricane blew with undiminished force. With every hour of wind the seas grew higher. But the *Lycoming* weathered both wind and wave. She was drawing near her destination. Her harbor was not many hours distant. But could she make it? Would she dare try to run between those walls of stone in such a sea? Would she not have to put back into the open Gulf, like the *Valbanera*, and try to ride out the storm? These and a hundred other questions Roy asked himself when he realized that the *Lycoming* was drawing near to Galveston. Then he thought of the sea-wall and felt thankful it was there. If the *Lycoming* had withstood the tempest, he felt sure the sea-wall had, too. He shuddered to think what would have happened had there been no sea-wall.

All the time Roy was working with his instruments, trying to pick up news, listening for voices in the air. Again and again he had tried to get into touch with Galveston, but in vain. It was not until the middle of the afternoon that he finally reached the Marconi man there. It

was late Saturday afternoon. The Galveston operator said the storm was then at its worst. The sea was beating furiously at the sea-wall. The wind was blowing nearly seventy miles an hour. The barometer was way below thirty. But the city was safe. He did not believe it would be wise to attempt to enter the harbor with such a sea running.

"Another night of it," groaned Roy to himself, as the Galveston man flashed good-bye. "I hope I never see another storm like this. I'll have to give this news to the captain."

Roy laid aside his receivers and picked up his telephone. His signal was answered by the captain.

"Galveston man says storm at its height there now," telephoned Roy. "Does not think it safe to try to enter harbor. Seventy-mile wind blowing."

There was no reply. The captain had turned away from the telephone in anger. He was the judge of whether to enter the harbor or not, and not some landlubber sitting where he couldn't even see the water.

Roy adjusted his receivers again. Hardly were they in place before a sound crackled in his ears, "SOS—SOS—SOS."

It galvanized Roy into action. The blood

surged through his heart. With eager, trembling fingers he flung back a reply.

"Who are you? I have your signal of distress."

For what seemed an age he waited for an answer. Outside, the wind was howling like a pack of demons. The wireless house shook and trembled under its awful blasts. The ship plunged from side to side. Roy clung to his table as he sat, tense and rigid, waiting for a reply.

"Who are you?" he flashed again. "I have your signal of distress."

Again he waited. Would the wireless play him false at such a critical minute? Were the atmospherics to trick him again?

Then it came. "Steamer *Empress*. Rudder broken. Drifting helpless."

"Where are you?" flashed back Roy. "What is your latitude and longitude?"

Crash! Bang! A terrible sea swept over the *Lycoming*. She heeled far over. Something had given way. Something was wrong with his wireless. Trembling, Roy ran to his door and peered out. His aerial was gone. It might take hours perhaps to rig a new one, even if he could get it up in the gale. What should he do? He *must* get the *Empress'* reply. Roy leaped to the deck. The broken lead-in wire was whipping in

the wind. Quick as thought, he snatched it up and ran back into the wireless house with it. He scraped the insulation from the broken end and dived under his couch. In a second he had attached the end of the wire to the couch spring. In another he was back at his table, receivers clamped to his head. Tense, breathless, rigid, he listened. Would it work? Could he hear?

Then it came. "Latitude 28. Longitude 96."

That was all he needed. Throwing his receivers aside, Roy picked up his telephone. Again he signaled the bridge. There was no response. He signaled sharply. No answer came. Again and again Roy tried to get the captain. The telephone was silent. Either it had been broken or the captain had been washed away by the awful sea that had struck the ship. In either case there was nothing to do but take the message to the bridge himself. Roy leaped to his feet and ran out of the wireless house, utterly forgetful of wind and wave. Slipping, scrambling, clutching rails and stanchions, Roy fought his way forward. There was but one thought in his mind—to get the news to the captain. The latter was still at his post, though the bridge rail was partly gone and the wheel-house was stove in. The telephone apparatus was smashed beyond recognition. Putting his mouth

to the captain's ear, Roy shouted, "Steamer *Empress* drifting with broken rudder. Latitude 28; longitude 96."

The captain looked at him incredulously.

"She left Havana before her usual time," shouted Roy. "New schedule."

For a single instant Captain Lansford bent his piercing eyes on Roy. "Stand by to send a message," he roared. Then he sprang for the chart house.

CHAPTER XVI

LATITUDE 28—LONGITUDE 96

ROY rushed after him. "My aerial has carried away, sir," he shouted. "I cannot send a message until it is repaired."

"Fix it," bellowed the captain, turning to his charts.

Roy fought his way back to the wireless house, pausing on the way to appraise the damage. The aerial was entirely gone, spreaders and all. Fortunately the halyards that held them aloft were intact. Roy hurried on to the wireless house. His closet was full of repair material. He got out two spreaders, a coil of wire, some insulators, and other needed materials. With remarkable celerity he attached his wires to the spreader, united them to a new lead-in wire and spliced them to what was left of the old wire. It was almost dark by the time he finished his repairs. When all was ready, he struggled out with his new aerial, and bent it to the halyards. In a few moments it was swinging aloft. Roy watched it for a minute as the tempest tore at it, to see if it would hold. Nothing gave way.

The captain, meantime, had snatched up a chart. "Latitude 28, longitude 96," he repeated, as he ran his finger over the chart. His ruddy face whitened as he found the spot. "Only thirty-five miles off a lee shore," he muttered, "and one hundred and thirty miles from here. Can I get to him in time?"

He turned to the man at the wheel and laid a new course for him. Then he sprang to a speaking-tube and ordered the chief engineer to crowd on every ounce of steam he could make. As the steersman swung the *Lycoming* to her new course she heeled far over. Then she righted and rode more steadily than before. The tempest had changed from northwest to west and the *Lycoming* was racing along almost with it. Though not directly astern, waves and wind were both driving the *Lycoming* forward. Soon she was tearing through the water at a rate she had never known before. Her very speed steadied her.

Roy, meantime, had rushed into the wireless house to test his apparatus. It appeared to work perfectly. Satisfied, he battled his way to the bridge again and reported to the captain.

"The damage is repaired, sir."

The captain showed him the positions on the chart. "Tell Charley we're coming," he roared.

"Find out just where he is, how he got there, and what he's doing."

Roy left the bridge and faced toward the wireless house. Now he was heading almost straight into the wind. It seemed to him the tempest was worse than ever. He could not advance a step. Desperately he clung to a stanchion. He dared not try to walk across the few feet of deck to the hand-rail on the superstructure lest he be picked up bodily and flung into the sea. He dropped to his knees, and fairly hugging the deck, crept fearfully over to the rail. There he was partly sheltered from the direct blasts. Crouching low and pulling himself along with arms and feet, he fought his way to the wireless house. It did not seem possible that a wind *could* be so terrible.

Roy adjusted his receivers, threw over his switch, and sent the *Empress'* call signal flashing forth. "KKK—KKK—KKK de WNA."

Then he waited anxiously. Would he get a reply, or would the atmospherics trick him again? At one hundred and thirty miles' distance he ought to communicate with the *Empress* easily. He was not long in suspense. Promptly a wireless signal buzzed in his ears.

"WNA de KKK. Have been calling you steadily."

"KKK de WNA," flashed back Roy. "My aerial carried away. Got your position all right. Tell your captain the *Lycoming* is rushing to help you. We are a few hours east of Galveston and one hundred and thirty miles from the position you signaled. We must be making twenty knots an hour. Should reach you in five to six hours. Keep us informed of your position. Are you all right? How did you get there? What are you doing?"

"WNA de KKK," came back the reply. "*Empress* reached Galveston early this morning. Sea too rough to enter port. Headed into Gulf to ride out storm. Broke rudder six hours ago. Drifted four hours, then put down anchors, but dragging fast. Captain couldn't get observation. Position given obtained by dead-reckoning. Trying to repair damage. Sea too high to do much. Ship all right so far. No land in sight. Change in wind helpful. Blowing us toward shore at long angle. Captain reckons six to eight hours before we ground. Reckons we are dragging straight toward Corpus Christi."

"KKK de WNA," signaled back Roy. "Will report to captain. Will call you every quarter hour. Good luck."

Once more Roy made the perilous trip to the

bridge. "Come inside," shouted the captain, dragging Roy within the wheel-house. Roy delivered his message and the captain listened without comment.

"Any message, Captain?" asked Roy.

"No. Keep in close touch with them."

"I have already arranged to call them every quarter hour."

"Good. Go back to your post."

"How shall I know if you want me?"

"I'll send a messenger."

Roy hurried from the wheel-house and vanished in the dark. Hour after hour the *Lycoming* raced toward the *Empress*. The seas were as mountainous and the winds as fierce as any the *Lycoming* had encountered, but the ship was running with them and its passage was less rough than it had been at any time since the tempest struck her. Unable to see the waves any longer, Roy almost believed that the storm was subsiding. Every quarter hour Roy called the *Empress*. At each call he got back the same reply. The *Empress* was battered but still safe. She was dragging her anchors. Every time Roy talked to her, the signals seemed more distinct. There could be no question that the *Lycoming* was getting nearer.

Four hours passed. A terrified darky cabin-

boy crept into the wireless house. "De cap'n say tell de *Empress* to show her search-light," he said.

Roy signaled the *Empress*, "Show your search-light."

Back came the answer, "Search-light out of commission."

"Tell the captain the *Empress'* search-light is broken," said Roy to the young darky.

"Does I haf to go back to de cap'n, Mr. Mercer?" cried the colored boy, shaking with fright.

"No," said Roy, jumping to his feet. "Stay here," and he disappeared in the darkness.

"Tell 'em to burn lights and send up rockets every few minutes," ordered the captain, when Roy had delivered his message.

Roy regained the wireless house and signaled the *Empress*.

"We've been doing that for hours," came back the reply. "Supply almost exhausted."

Again Roy had to fight his way to the bridge with the message. It might be important for the captain to know about the lights.

Another hour passed. The *Empress* was not within sight. For half an hour longer the captain held to his course. Then he headed the *Lycoming* nearer shore. Another half hour passed. The *Empress* was still invisible.

Then an able-bodied seaman appeared in the wireless house and said, "The captain says to see if you can find out anything about the location of the *Empress,* sir."

Into Roy's mind flashed the remembrance of the fog off Hatteras. He had located the *Merrimack* in the fog. The captain must believe he could also find the *Empress* by wireless. It was a great opportunity.

"Tell him I'll try," said Roy.

The seaman started for the bridge. Roy dropped his head in his hands and began to think. How could he locate the *Empress*? A direction finder such as they had in the search for the secret wireless would do the trick at once. But he had no direction finder. Then Roy remembered how the wireless patrol had improvised a direction finder during the hunt for the dynamiters at Camp Brady. He had helped make that instrument. He could make another. Before he began, he decided to call up the *Empress* again. Hardly had he adjusted his receivers before a signal crackled in his ears.

"WNA de KKK. Can see a search-light. Is it yours?"

"Will have the light swung in an arc three times. Watch," flashed back Roy.

The seaman had not returned, and again Roy

had to go to the bridge. " Swing the search-light overhead in an arc three times," shouted Roy. " The *Empress* thinks she sees us." Then Roy added, " Please send a seaman to carry messages for me."

The great beam of light that had been boring into the darkness ahead swung round to starboard, then slowly traveled in an arc directly over the *Lycoming* until it came to rest on the seething waters to port. Then it retraced its path. A third time it circled overhead, lighting up the heavy canopy of clouds. Meantime Roy had regained the wireless house. Trembling with eagerness, he clamped his receivers to his ears and listened.

" WNA de KKK," presently came a signal. " It's your light. We saw it swing overhead three times. Can see its beams now."

" Get a compass bearing on it and signal me," flashed Roy.

In a few minutes the answer came. " Almost due east."

Roy sent the news to the captain. " She's dragged more than I thought possible," muttered the captain as he entered the chart house. Then, turning to the steersman, he ordered, " Starboard —head her due west."

Twenty minutes later lights flashed out di-

rectly ahead of the *Lycoming*, then disappeared again. It was the *Empress* as she rose and fell with the waves. She was only a few miles distant. A few minutes later the *Lycoming* was close to her.

To Roy, watching from the wireless house, it did not seem humanly possible that the *Lycoming* could assist the *Empress*. The latter lay with her nose to the storm, rising and falling with the waves and rolling violently. Roy could see two great anchor chains leading down into the water. Most of the time the *Empress* rode the huge swells buoyantly. But occasionally the crest of a great wave broke over her and went rushing aft with an awful roar, smashing woodwork and twisting iron. As the *Lycoming's* search-light played on the *Empress* Roy could see that her bulwarks and rails were smashed to pieces. All but one of her small boats had carried away. Her life-rafts were gone. Part of the railing about the bridge was smashed. To Roy she seemed all but battered to pieces. To an experienced sailor like Captain Lansford, she appeared to be in good shape. The ship herself was intact.

How any earthly power could get lines aboard of her, or how it could tow her in the teeth of such a gale, even if the lines were got aboard, was more than Roy could understand. He did not believe

it possible. He did not believe any small boat could exist for one minute in that raging sea. Yet he knew very well that Captain Lansford intended to assist the *Empress*. What he would do Roy could not conceive. All he could do was to watch and learn.

For some time Roy could not see that anything was being done. The *Lycoming* reduced her speed, but kept steadily on past the *Empress*. Then she began to swing around her in a wide arc. Roy believed the captain meant to approach close to the ship from the leeward side. But when the *Lycoming* continued to circle slowly around the *Empress*, Roy was puzzled.

The *Lycoming* swung completely round the *Empress*, but not until the circuit had been completed did Roy get an inkling of what the captain was doing. The search-light played here and there, now picking out the path of the *Lycoming*, now illuminating the *Empress*, which tossed violently at the very centre of the huge circle the *Lycoming* had just traced. To his intense surprise Roy saw that the water within this circle was calming down. It rose and fell as mightily as ever, but no seas broke. Giant waves mounted higher and higher, gathering volume and power as they rushed down on the *Empress*, but instead of breaking with a crash and hurling tons of

water at the helpless steamer, they subsided without foam or fuss. It was as though some invisible hand had spread a great, elastic blanket over the face of the seething waters. They billowed and tossed beneath this invisible blanket, but they billowed and tossed harmlessly. The power of the waves to smash things was gone. Amazed, incredulous, disbelieving the very thing his eyes beheld, Roy watched the miracle that was being performed. Finally it came to him that Captain Lansford was putting oil on the sea.

In the nose of the *Lycoming* sailors had been at work for hours preparing to perform the miracle that Roy was watching. Great, cone-shaped bags had been made of canvas and stuffed with oakum. The oakum had been saturated with storm oil. The bags had been suspended over the forward wash-basins so that at the proper time their contents could drain into the sea. Additional supplies of oil stood at hand in cans. Long before the *Lycoming* came abreast of the *Empress,* Captain Lansford had everything in readiness to spread abroad the oil film that was now taming the seas before Roy's astonished vision. At the proper moment word was passed to start the oil. With coarse sailmakers' needles the canvas cones were punctured and the oil began to flow. Drip, drip, drip, drip, it fell into

the wash-basins and made its way down the drain-pipes to the sea, hushing the boisterous breakers even as Christ stilled the waters with His command, " Peace. Be still."

Three times the *Lycoming* circled the *Empress,* each time at a greater distance, until the waters for a mile about the crippled liner were coated with oil. Then Captain Lansford brought the *Lycoming* as close as he dared to the *Empress,* which lay directly to leeward. A great life-boat was unlashed and made ready for launching. Up to this time Roy had remained in the wireless house. Now he made his way to the deck, where some sailors were gathered beside the life-boat. The captain stood on the bridge with a megaphone in his hand. He roared out a call for volunteers to man the boat. There was a rush for the smaller craft. Without pausing to consider, Roy leaped into the boat. He found himself seated beside the sailor who had come to the wireless house with the captain's message. The boat was manned almost before Roy was fairly seated. The third officer sat in the stern to steer her.

The captain was scanning the sea critically. " Launch her! " he bellowed suddenly.

The boat swung outboard and dropped on the smooth crest of a wave. The tackles were cast loose and all hands gave way with the oars that

their tiny craft might not be smashed against the *Lycoming's* side. Before the next wave rose they were at a safe distance from the *Lycoming*. The lines they were to take to the *Empress* trailed astern.

From the deck of the *Lycoming* the oily sea had seemed comparatively peaceful. Once Roy was on it in a small boat, he found it was terrible. The little life-boat was tossed about like a cork in a boiling caldron. Now it shot high in the air, lifted by some mighty roller. Now it dropped down, down, down, until Roy thought it would surely go to the bottom. Once away from the protection of the *Lycoming*, the life-boat felt the full force of the wind. It seemed to Roy the blasts would jerk him from his seat and throw him into the maelstrom. Now the boat bobbed this way. Now she ducked the other way. A feather whirling in the tempest could hardly have been more unstable.

In such a sea none but an expert oarsman could wield a great oar such as Roy now grasped. Had he been the least bit awkward with it, he might easily have caused disaster. Roy realized that at once and thanked his lucky stars that he had learned to row well that first summer in camp at Fort Brady. Now he gave way smoothly and with power. Through the darkness he tried to

see the stroke oar and pull in unison. The search-light pointed its powerful ray over their heads, lighting the way for the steersman. It was useless to call the strokes of the oars. In the shrieking wind no earthly voice could have been heard. There was nothing to do but sit tight and pull.

Slowly the boat forged through the seething sea. It neared the *Empress,* which seemed to bulk as huge as a mountain. Painfully the little craft fought her way to the leeward side of the *Empress* and crept as near as she dared. Lines were flung from the *Empress.* They were bent to those the life-boat was towing. Slowly these were hauled to the ship, and the crew began to pull on the heavy hawsers to which the life-boat lines were attached. The *Lycoming's* boat worked its way along the lee side of the *Empress,* toward the davits that had been swung outboard to lift it. Suddenly there was a great outcry aboard the *Empress.* The anchor chains had snapped. At once all hands were called forward to pull on the hawsers. Unless they were got aboard the *Empress* was doomed.

Straightway the wind drove her directly toward the little life-boat. With all their might the men in the boat pulled away from the ship, which would have crushed them like an egg-shell.

In a moment they had passed from under her protecting side and found themselves pitching wildly on the inky waves. To get back to the *Lycoming* was impossible. To try to gain the *Empress* was worse than useless. To stay where they were was folly. The only hope of safety lay in scudding before the storm. Instantly the third officer's decision was taken.

" Give way," he roared, and as the crew bent to their oars, he swept the tiny boat around. In another moment the little craft was racing before the tempest, tossing wildly, but thanks to the oil film, riding buoyantly and safely. Rapidly the *Empress* and the *Lycoming* fell astern. Soon they were lost to sight. Above the life-boat the night was inky black. About her the waters heaved and roared. Ahead of her lay the wild sea, with its awful waves and its fearful, crashing combers.

CHAPTER XVII

LAND AHEAD!

ON rushed the little craft. Aboard the *Lycoming* the seas had seemed terrible. To Roy, in an open boat, they were stupefying in their awfulness. No power of imagination could conjure up anything so terrific as this hellish welter of water. It hissed and seethed and roared and tumbled. It boiled up in fury. It was paralyzing in its awfulness. It benumbed mind and body. Terrified, aghast, Roy huddled down in his seat. Then he thought of the captain. His courage came back. The blood again coursed through his veins. He gripped his oar and bent to his task with a will. He did not believe he would ever reach the shore. But if he were to die, he meant to die like a man. He thought of the wireless operator on the *Comal* who had bidden him good luck even as he was drifting to what seemed certain death. Roy took a last look at the *Empress*. "Good luck!" he shouted, then bent to his oar.

The wind snatched the words out of his mouth. The man beside him did not know he had spoken. The clamor of the elements drowned all other sounds. Conversation was impossible. The mate at the stern could not make his orders heard. There was nothing to do but sit tight and row. That helped to steady the boat.

On they went. Now they were down in the trough of a wave. Now they were on a mountainous crest. Thanks to the oil slick, no water came aboard. But the edge of the oil film was near at hand. Straight ahead of them Roy knew the waves were breaking with awful violence. Soon they would be among those unbridled crests. Let but one of them come toppling down upon the little boat and all would be over. Roy gritted his teeth at the thought. "At any rate I'll die game," he muttered.

The life-boat mounted upward. Up and up it climbed on the slope of a huge comber. It reached the top.

"Lights ahead!" cried the mate, who was facing forward. "Lights ahead!"

A single oarsman caught the words. From man to man it was shouted the length of the boat. "Lights ahead!" The life-boat topped the wave and plunged forward into the trough. Again it climbed upward. The mate strained his eyes

through the blackness. This time he saw many lights stretching for a long distance.

"Land ahead!" he roared. Again the cry was carried forward from man to man, "Land ahead!"

Hope sprang up in Roy's heart. If they could see lights from a little boat, the lights must be near at hand. Poor Roy! He did not know the lights were high on a bluff and could be seen for miles. "We're going to make it!" he cried to himself, and fresh courage came to him.

The little boat shot past the protecting oil slick. Roy knew it in a second, even though he could see nothing in the darkness. At once the waters became frenzied. The little craft no longer smoothly rode the swells. She was tossed like a chip in a whirlpool. The waters boiled up under her, seethed around her, and came together with terrific impact. The waves broke with a surging roar past description. To make matters worse, the wind shifted, coming directly off shore. Roy noted the fact with joy. It might mean the salvation of the *Empress*. Spray filled the air. It flew in blinding, drenching torrents before the blast. It soaked the oarsmen. It began to fill their boat. The awful wind chilled the rowers to the bone. Yet all the time they advanced. Despite the wind, the waves and the power of their

own efforts flung them shoreward at an incredible pace. The lights were coming nearer.

Dawn was approaching, too. Low on the horizon the rowers saw the first faint streaks of light. Their courage increased. They bent to their oars with renewed strength. As the light grew, the man at the helm began to pick out objects ahead of him. The distant land was faintly silhouetted against the pale morning sky. Intently he watched, looking for familiar landmarks. Suddenly he knew where he was. The little boat was driving straight for Corpus Christi.

He began to hope that they might reach shore in safety. He knew the harbor well. Mustang Island was dead ahead. Aransas Pass was only slightly to starboard. If he could work the boat over sufficiently, they might shoot through the pass into Corpus Christi Bay and safety. Could he do it?

He leaned against his steering oar and skilfully pointed the life-boat's nose a bit to starboard. The wind was no longer dead ahead and the craft was no longer running directly with the waves. She was quartering, cutting through them at an angle. This was dangerous, but necessary to ultimate safety. If she could advance a few hundred yards to starboard the channel would be

dead ahead and she could run to safety straight before the waves.

She had almost gained her distance when a monster wave broke just behind her. A thousand tons of water came crashing down on the rowers. Boat and oarsmen disappeared from sight, and the wave rushed on shoreward.

Down, down, down into the seething vortex went the crew. Roy thought he would never come to the surface. He tried to fight his way upward but the swirling water sucked him down. He felt as though his lungs would burst. Just when he thought he could hold his breath no longer, his head popped above the water. He gasped for air, then looked about him for his companions.

The boat, overturned, floated near by. Oars were bobbing here and there on the waves. One by one his companions came up. Roy counted heads. All were there but the mate. Something bumped Roy violently from behind. He turned around. The mate, unconscious, had just come to the surface. His own oar had knocked him senseless as the boat capsized.

Roy grabbed the mate by the hair and called for help. Nobody heard him. Everybody was swimming for the overturned boat. A long oar was floating near Roy. He grabbed it, and

shoving it ahead of him, fought his way to a second oar, towing the mate behind him. The struggle, though brief, was so violent that it almost exhausted him. He got an oar under each of the mate's arms. Then slowly treading water and holding fast to the two oars himself, he tried to recover his strength.

Presently the mate regained consciousness. He grabbed the oars convulsively. He did not know that Roy was behind him until he tried to swim and his feet struck him. The mate looked around and saw Roy. He comprehended the situation at a glance. Roy had saved his life. He also saw that their best chance lay in getting to the overturned craft.

"To the boat!" he shouted, taking one oar and leaving the other for Roy. Then he struck off toward the life-boat. The two fought their way back to their comrades, all of whom had reached the boat.

They were trying to right it, but the task proved impossible. Evidently there was considerable air under the boat, for her bottom was high out of water and she was riding the waves buoyantly. One by one they crawled up on the boat and lay flat on their bellies, clinging desperately to the heaving craft. Again and again men slid back into the sea. Their comrades pulled them

up again. Once every soul was washed overboard by a breaking wave but all got back.

The cold wind chilled them to the bone, benumbing them. In comparison, the sea felt warm. Finally Roy was so cold he could endure it no longer. He slid from the boat's bottom and gripping her keel, clung just astern. Only his head and arms were above water. Gradually he grew warmer.

Dawn changed to the full light of day. As every wave lifted them up, the shipwrecked mariners could plainly see the land before them. They could even make out the terrific surges as the waves broke on the shores of Mustang and Rockport Islands. They knew, unless the end came sooner, that there was where the pinch would come—when they had reached the long, sloping beach and were being pounded by the terrific surf. For the sea was bearing them slowly toward land.

An hour passed. They were appreciably nearer land though still far from shore. Another hour went by. Now they were near enough to shore to distinguish small objects on land. The breakers were not far distant. It was close to eight o'clock, though no one in the group knew what the hour was, when the sea began suddenly to move shoreward in a mysterious, irresistible

fashion. As though power had been applied to it, the overturned boat started toward the land. Roy tried to scramble up on it. A small wave, traveling shoreward with terrific velocity, banged Roy against the craft, then tore him loose from it, swept over the boat, and sped shoreward. The men clung to the boat frantically. Not one was washed off. The mate was still grasping an oar. He flung it to Roy, who grabbed it and tried to swim back to the life-boat. The current swept him away, but both Roy and his comrades were borne rapidly and irresistibly forward, as wave after wave, each higher than its predecessor, rolled in from the sea, carrying everything before them.

Through the blinding spray and the heaving waters, Roy tried to see where he was going. He could feel himself being carried forward at great speed. He knew he must soon come to land. But the thought of the breakers sickened him. The current had drifted him opposite Mustang Island again. Straight in he drove, but the pounding breakers seemed to diminish as Roy drew near them. Then they disappeared altogether. In another minute Roy was floating over what, a short time before, had been Mustang Island. For the first time he realized that he was in the grasp of a tidal wave. Instantly he

thought of Galveston and wondered if Corpus Christi was to suffer as its sister city had done.

But he had small opportunity to think about anything save his own safety. Before Roy knew it he was in the midst of a struggling herd of cattle. Even above the roar of the storm he could hear their frenzied bellowing as the sea swept over their grazing-grounds and carried them into Corpus Christi Bay. More dangerous than the sea was the furious struggling of these frantic animals. With all his might Roy strove to get clear of them. Avoiding striking hoof and plunging horn, he swam to one side of the herd, and the current soon swept him clear of them.

But in his flight he lost his oar. He had now only his own exertions to sustain himself. And his violent efforts to get free of the cattle had tired him utterly. He must find something to help float him and find it soon. He began to look about him. The bay was full of wreckage. A dark object rolling in the waves at a distance attracted Roy. It looked like an overturned boat. Roy swam for it. As he approached, a wave partly righted it. Roy saw before him a good-sized launch. It lifted still farther out of water and he caught the name *Waldo*. Then the craft rolled back until only one side was visible above the flood. But that was enough to sustain

Roy, and with a thankful heart he crawled up on the stricken launch and lay down on it at full length.

The current bore him on and on and great waves continued to roll in from the sea. The wind was blowing as violently as any wind Roy had encountered in all the days of storm through which he had passed. But within the land-locked bay the waves were pigmies compared to the giant rollers in the Gulf. Furthermore, the inrushing tidal wave seemed to beat down and flatten all opposing waves. Roy felt sure that he would now reach the shore in safety.

Presently his strength came back to him. He sat up and looked about him. Already the inrushing tide had carried him far up the bay. He judged that this might be eight or ten miles wide. How long it was he could not guess, though he was certain that its length must be at least double its width. Far to the west he could dimly see there was a city. There were high bluffs there and he felt sure that he saw buildings. But the blinding spray made his vision uncertain.

Wreckage floated on all sides of him. Telephone-poles, uprooted trees, fence-posts, logs, planks, roofs, doorsteps, porches, parts of buildings, and a thousand other floating objects filled the bay. The farther Roy traveled, the more nu-

merous became these floating objects. Soon Roy began to fear that he might be pounded to death by the wreckage. It began to collect about his boat and to beat against it. Suddenly a great log was catapulted, end on, straight at the *Waldo*. With a crash that was audible above the storm it stove in one entire side of the launch and the *Waldo* disappeared amid the swirling wreckage. But Roy had foreseen what would happen. Scrambling to his feet, he leaped far to one side as the boat sank, and swimming under water came up clear of the wreckage. A large tree was floating near by, riding majestically through the waves. Roy swam to it, and, grasping some roots, pulled himself up on the trunk. To his horror he found a rattlesnake coiled up on the tree. For a moment Roy was on the point of jumping back into the water. But the reptile showed no disposition to molest him, and Roy stuck to the log. He kept one eye on the snake and watched closely for a new support.

The current drove him on and on, though all the while it shunted him toward the south shore. Now he could plainly see the city. It was apparent the waves were carrying him straight for it. As he drew near he saw that the water had already spread far up in the town. Waves were surging about all the houses in the lower part of

the city. From these houses persons were wading toward the higher ground far inland. It was an awful sight. Block after block of dwellings stood in the flood, and Roy could see that every minute the waters were rising higher. Everywhere little groups of refugees were struggling through the swirling waves, slipping, stumbling, clinging desperately to one another as they raced with death through the rising waters. With incredible swiftness the flood deepened around the doomed dwellings.

People appeared at second-story windows. Terrified men, women, and children who had lingered too long, leaned from these windows with blanched faces, looking for means of rescue. The floating wreckage, now blown together in solid masses, drove into the city and began to batter the inundated dwellings. Roy shuddered. He knew what it meant.

Even as he looked a dwelling collapsed, spreading apart like a house of cards and falling into the flood. "Great God!" cried Roy, shuddering with horror. There had been faces at the second-story window. Another house went down. A third split in half, like a beef riven along the chine, and the two halves leaned away from each other and toppled over into the flood. By the height of the water on the buildings Roy judged

that the waves must be ten feet deep. House after house went down. As each collapsed, the wreckage added volume to the mass of floating débris that was battering the city to pieces. Now dwellings went down by tens, now by scores. They disappeared faster than Roy could count. The noise of the tempest and the battering of house against house was indescribable.

Everywhere men, women, and children were leaping from their homes into the flood. Some disappeared forever. Some were able to crawl up on floating timbers. Some were crushed beyond recognition. As the houses fell apart, the terrible wind picked up boards and planks and hurled them hither and thither. The air was filled with flying timbers. A great board came sailing directly toward Roy. It would have killed him had it touched him. He fell flat on the tree trunk and the board whizzed over his shoulder.

But the movement brought Roy within a few inches of the snake. Terrified, he leaped to his feet again and began to look for another refuge. The side of a house floated by. It was within twenty feet. Gathering himself for the effort, Roy leaped on a large timber, then to a telegraph-pole, and from that to the side of the house. He reached it safely. It was still firm and it

rode high out of water. Evidently there were big timbers beneath it, buoying it up. Roy found that he could walk around on it safely.

The sight of so many persons distressed and dying was sickening. Roy's heart cried out to rescue them but he was helpless. His raft was wedged in a mass of débris acres in extent, that grew as every collapsing house was added to it, that became every moment more compact, and that was flung forward by the irresistible current, mowing down houses as a scythe topples over grain. He dared not try to cross the floating mass. Inevitably he would have sunk through it. Once beneath the mass death would have been certain. All he could do was to stick to his raft and wait for the moment for escape.

On and on drove the mass. Where a few minutes previously houses had stood by hundreds, there were now only acres and acres of tossing débris. On every side Roy saw refugees, riding like himself on the wreckage or clinging to floating logs or planks.

Anxiously Roy peered through the spray and rain, sheltering his eyes with his hands, and trying to discover where he was going. Behind him were the raging waters of the bay. Far to the right, beyond the houses among which Roy's raft had drifted, Roy could see more open water.

Ahead another stretch of writhing water appeared. Roy judged that the dwellings around him must be on a narrow point of land. If he were washed across that point, a great, open stretch of water would lie before him again. Only to the left could he see dry ground. In that direction were high bluffs. He bent all his efforts toward gaining these heights.

His raft, heavier than most pieces of wreckage, drove through the mass irresistibly under the pressure of the waves. Roy saw that it would surely batter its way across North Beach, and be driven into the water of Nueces Bay, which he had glimpsed beyond. If that happened he would again be helplessly exposed to the fury of the tempest. A long pole came driving by and fell into the water beside Roy's raft. Roy leaned far over the edge and grasped it. He found that he could touch bottom with it. He tried to work his raft toward the high ground. It was so bulky he could do nothing with it.

Two short telephone-poles, lashed together, were floating near by. Roy leaped on them and found that they would carry him safely. With his pole he was able to shove them through the water and thrust aside obstructing pieces of wreckage. He worked his way clear of the mass and got into what had been a street running to-

ward the bluffs. Now it was like a canal in Venice. The houses on either side stood deep in water. None had yet collapsed and the great mass of wreckage had largely been held back by the rows of houses still standing on the seaward side. Up this watery avenue Roy forced his craft as best he could. The turbulent waves tossed him about, the current continually bore him against the houses, and the wreckage impeded him. By the greatest exertion Roy overcame all obstacles and drove his little raft nearer and nearer his haven.

As he drew closer to the bluffs, the water became shallower. Presently it was no more than waist-deep. All about him people were dropping from their homes into the flood. A woman with a little child appeared at a window directly above Roy's raft and called for help.

"Drop her," shouted Roy.

The woman lifted the child through the window and dropped her. Roy caught the sobbing child and placed her on the raft at his feet. The woman crawled from the window and fell into Roy's arms. He was knocked down, but he managed to hold the woman on the raft. She picked up her child. Roy looked for his pole. It had been washed away. He leaped into the water, which was no more than waist-deep, and

tried to drag the raft toward shore. The waves battered and beat him. The raft was tossed about. But Roy clung to it and gradually dragged it into shallower water. Finally he put the baby on his shoulder, and leading the woman by the hand, waded to safety.

All about them scores of wet and terrified persons were similarly seeking safety. "Go to the court-house," he heard some one say. He inquired the direction and made his way thither with the woman and the child. The streets in the business section were already under water. The court-house was waist-deep, but they gained it in safety. "Thank God!" exclaimed Roy.

In the building were scores and scores of terrified refugees, huddling together in white-faced fear. Nobody knew what might happen. For a moment Roy did not know what to do. He looked with a sick heart at the sad company about him. He could do nothing to help them. Then he thought of the white faces he had seen in the doomed houses past which he had floated. He knew what his duty was. He bent and kissed the child he had rescued. "Good luck!" he said to her, and turning away from this haven of safety, went out again into the flood.

CHAPTER XVIII

BACK INTO THE STORM

THE rising waters forced him again to seek safety. He struggled through them and reached dry land. He was almost exhausted. He had had no food since supper time the night before. For hours he had been exposed to wind and water. He had almost reached the limit of endurance. He staggered on, not knowing what to do or where to go. A boy scout came hurrying by.

"Where could I get a bite to eat?" asked Roy. "I'm nearly dead."

"Go to the Red Cross headquarters in the First Presbyterian Church," replied the scout, and directed Roy how to find the church.

Roy staggered on. He was so nearly exhausted that he could hardly make his way up to the church. Other refugees, like himself, were heading for the place. It was a sorry procession. At length the church was reached. There was food in abundance and coffee steaming hot. Roy

ate as though famished. He drank cup after cup of coffee. Never had he tasted anything so good. The coffee warmed and stimulated him. His strength returned to him as he rested and ate. He watched the Red Cross women as they ministered to other refugees. He admired the cool, skilled way they did their work, the quiet manner in which they cared for others when perhaps their own homes were imperiled. The thought was like a galvanic shock to Roy. This was no place for him, this warm and comfortable church. He had a duty to perform, too. His duty was out there in the storm. And again he thought of those white faces at the windows.

Back into the storm he plunged, seeking where he might be most helpful. In no time he was at the water's edge again. Scores of persons were still marooned in their houses. They must be gotten out or they would be drowned. The water was almost at its highest and the storm was licking up dwelling after dwelling. Roy looked about him. Four white faces were peering from a near-by house. Roy waded toward it. The water crept up around him but he gained the building. The sea had broken open a door. Roy entered, found the stairway, and went up to the terrified inmates. They were a mother and three little girls.

" Come quick," he said, " or it will be too late."

The children held back, afraid to step into the water. " Get on my back," said Roy, picking up the largest child.

He went down the stairs and struggled to land. The water was waist-deep and running like a mill-race.

" Wait here until I bring the others," said Roy as he placed the child in a sheltered doorway.

Again he waded through the flood. The water nearly swept him off his feet. He got another child on his back.

" Come," he said to the woman. " If you do not leave at once you can never get ashore. I will come back for the baby."

The woman hesitated. " You are risking everything," said Roy. " We'll all be drowned if you do not come at once."

The woman began to sob hysterically. She refused to move. Roy was sadly perplexed. Something *must* be done at once. But how? Into Roy's mind flashed the thought of his commander. He knew what Captain Lansford would do. He would compel obedience. Roy ceased to argue with the woman.

" Come with me," he shouted harshly. He seized the woman by the shoulder and roughly forced her down the stairs. Then he seized her

hand. "Come on," he said roughly and dragged her into the flood.

Desperately he fought to get her to land. The child on his back weighted him down. The current swirled about him. He could hardly keep his feet. He struggled on, dragging, pushing, pulling the woman toward shore. A plank washed near him. He grabbed it and shoved it to his companion. The plank steadied her and she made better progress. They gained the shallower water and got beyond the reach of the waves.

"Go to that doorway and wait for me," said Roy, pointing out the refuge of the child he had already taken ashore. He handed the child on his back to its mother, Then he turned back. This time he had to swim. The waters had risen so high he could no longer wade. He reached the house and found the baby safe on the upper floor. At first he did not know how to get her ashore. She was too little to cling to his shoulders. Something had to be done quick. He snatched a sheet from the bed, folded it, and tied the baby on his back. Then he went down into the flood, and struggling desperately, got back to land. He took the baby in his arms and leading the others, made his way again up to the Red Cross headquarters. When they got there, night

was not far distant. The crest of the flood had been reached. The wind still blew at hurricane force. Roy delivered his charges to a Red Cross nurse and was about to turn away, but the woman he had rescued caught him by the arm.

"How can I ever thank you?" she cried. "If you had not compelled me to go we should all have drowned."

Roy did not know what to say. He suddenly felt embarrassed. "I'm glad you're all safe," he muttered and turned away.

But he did not go back into the storm. Suddenly a great weakness possessed him. His legs refused to hold him up. He was quivering all over. He believed he was about to be sick. He sought out a warm corner and sat down. But he was not sick. It was only outraged nature taking her toll. Roy was utterly exhausted. The coffee he had drunk had given him a false strength. Now that the crisis was over he was suddenly weak and tired—so tired. As he sat in the corner, he thought over the events of the past week. Always his thoughts came back to his captain, that great, rough, rude commander. Real kindness, Roy understood for the first time, does not always consist in soft words or an easy manner. He realized that now from his own experience. He had been kind to the limit of kind-

ness to the woman he had rescued. But he had treated her with violent roughness. He saw his commander in a new light. Pondering over the matter, he fell asleep. And for hours, huddled in his corner, he was like one dead.

Morning came. Roy awoke. He was entirely refreshed. He jumped to his feet, confused at first. He did not know where he was. Then the whole terrible situation came to him. He supposed his companions were dead. He tried to shut the memory of his terrible experience out of his mind but could not. The suffering about him weighed him down, sickened him. He could stand danger better than distress. He went outside and looked about.

The sight that greeted him was appalling. The North Beach district, where he had so lately battled with death between the houses, was a surging sea. Three great structures still stood with the waves beating about them. A passer-by told him they were a private residence, the old North Beach Hotel, and the Spohn Sanitarium. Twenty-four hours earlier fifteen hundred houses had stood where now Roy saw only tossing waves. He turned from the sight in horror. The three buildings that remained on North Beach were terribly battered. Porticoes, doors, shutters, chimneys, and other parts had been wrenched

away by wave and wind. Whole wings had been torn from the sanitarium. As Roy looked at it, he saw with horror that there were people still in it—doubtless sick and helpless.

Even as he looked Roy saw a man wading out toward the hospital. He watched, fascinated. Now swimming, now wading, the man fought his way to the battered building. A white-robed nurse appeared in a doorway. Presently the man faced about and fought his way back to land.

Roy turned back into the church. "Who is in charge here?" he asked one of the Red Cross workers.

"Miss Mildred Seaton," was the reply. "She is over there, talking to that messenger from Mayor Boone's office."

Roy made his way toward the two. "Miss Seaton," he said, when she had finished her talk with the mayor's messenger, "I want to know what I can do to help."

"What is your name? What can you do? We need workers of all sorts."

"I am Roy Mercer," began Roy, "wireless man on the steamship *Lycoming* ——"

His companion cut him short. "What we need more than anything else," she said, "is help. All the wires are down and we can get no word out. Can you send a message?"

"Is there a wireless station here?" asked Roy.

"No."

"Do you know of any amateur operators? I might be able to use their equipment."

"I don't know of any. Go to the mayor."

She called to the messenger, who was just leaving the room. "This is Mr. Mercer," she said. "Will you please take him directly to Mayor Boone. He is a wireless operator. Perhaps he can get help for us."

The messenger took Roy directly to the mayor, and introduced him.

"I suppose there are some amateur operators in Corpus Christi," said the mayor, "but I do not know of any. However, there is a shop where all sorts of electrical equipment are for sale. Maybe you could find what you need there." He told Roy what he should say if he got into communication with anybody.

Then he turned to his messenger. "Go with this gentleman," he said. "Spare no effort to get what he needs. Lack of communication is our worst trouble now."

They found the owner of the shop. He had the necessary equipment if it could be gotten, but his store was under three feet of water.

"We'll have to wade," he said, "but we'll take a look."

They reached the store and crawled in through a broken show-window. They had no difficulty to find wire, although it was on the floor. Only after a long search under the muddy waters did they secure a condenser. Neither wire nor condenser was any the worse for the wetting. From drawers and shelves, some awash and some high and dry, they took one article after another—receivers, a tuning coil, insulators, some large batteries. But they could find no spark-gap.

"Have you a repair-shop?" asked Roy. "And are there tools and materials in it?"

"Yes. It's right back of the shop, and it is flooded, too."

"Never mind that," said Roy. "I'm used to water by this time."

They waded into the shop. The water was about two inches below the level of the work-bench.

"Good!" said Roy. "This will do fine!"

Skilfully he cut a block for the base, sawed some pieces for posts, and drilled them and fastened them upright at the proper distances from one another. He got a short, slender metal rod, cut it in half, ground the ends into sharp points and thrust them into his uprights. It was a very crude affair, but when properly wired up would

work. The difficulty now was to get a key. None was to be found. They gathered up all the tools, wires and other things they would need, and left the shop. At the railway station the mayor's messenger secured a telegraph-key. Roy said that he could alter it a trifle so that it would answer. Then, soaked but satisfied, they carried their materials to the very highest part of the city.

There Roy was made welcome in a private residence. Rapidly he fashioned an aerial. With the help of the owner of the house he suspended this aerial between a high tree near by and a chimney of the residence. He brought his lead-in wire through a window, rapidly wired up his instruments, and coupled on his batteries. As he pressed his key, a fat spark leaped between the points of his spark-gap. Skilfully he adjusted these and turned to his host.

"If only I had a wireless signal book," he sighed. "It may be hard to raise anybody, for I don't know a single local call. Probably I'll have to send out an SOS. What is the nearest place where they would be likely to have a Marconi station?"

"Probably San Antonio."

"How far is that in a straight line?"

"I don't know exactly. Perhaps a hundred

and twenty-five miles—possibly a hundred and thirty."

Roy looked at his batteries dubiously. "I'll make the effort anyway," he said. "Maybe they'll carry that distance."

"I hope you can get them," said Roy's host anxiously. "We need help badly. We especially need soldiers. Looting has begun."

"Soldiers!" cried Roy. "Why didn't I think of them before? There's an army post at Brownsville. How far is that?"

"About the same distance as San Antonio."

"Thank heaven I know their call signal," cried Roy.

He pressed his finger to his key. Blue sparks leaped across his spark-gap. "WUZ—WUZ—WUZ," he flashed.

Then he sat breathless and listened. Would his battery carry far enough? There was no answering signal.

"WUZ—WUZ—WUZ," flashed out Roy. Then once more he sat tense, listening.

Something crackled in his ear. "Who is calling WUZ?"

"Corpus Christi," flashed back Roy. "City terribly damaged by tidal wave. Scores drowned. Hundreds of houses washed away. Property loss millions. Need food, medicines, workers,

soldiers. Looting has begun. For God's sake rush help. Gordon Boone, Mayor."

"Who is this talking?" came the reply. "Never heard of a wireless station at Corpus Christi."

"This is Roy Mercer, shipwrecked wireless man, talking on emergency outfit for city authorities. Call ABC."

So Roy sent abroad the news of the city's plight, even as Paul Revere carried to every Middlesex village and farm the news of Lexington's peril. Next morning soldiers marched into the city. Martial law was declared. Sentries were posted. Corpus Christi was safe. Other helpers rushed to the stricken community. A Red Cross relief train sped to the rescue. The Salvation Army sent workers. Physicians and nurses came. Food and supplies poured in. The stunned city pulled itself together. Workers were organized to search out and care for the dead, to clear the streets, to look after the homeless, to feed the hungry. Emergency tent camps arose. Canteens were opened. Boy scouts collected clothes, carried messages, and were the legs of the rescue work. And until telephonic communication was restored, Roy sat at his instrument hour after hour, sending and receiving messages for the stricken city.

The air and the sea brought help. An army aviator dropped thirty pounds of sorely needed yeast into the city. The flood had spoiled all existing stocks. As soon as the sea subsided, boats rushed to Corpus Christi, bearing gifts. The seagoing tug *Rotarian* came from Galveston, carrying money, supplies, and workers.

When Roy learned of the *Rotarian's* arrival he sought her out and went aboard. The captain met him as he came up the gangplank.

"Can you tell me anything about the *Lycoming* or the *Empress?*" demanded Roy.

"Both safe in Galveston," said the tug's skipper. "They are pretty badly battered up, but still sound. They had an awful fight to make it. The *Empress* broke her rudder and the *Lycoming* took her in tow. Nobody but John Lansford could have done it. I tell you he's a wonder—heart like a woman's—courage like a grizzly—rough as barnacles on a ship's bottom. The worst storm that ever blew—and I guess this was it—couldn't make him desert a ship in trouble. He was darn near to port, he was, and didn't he turn back into the hurricane and take the *Empress* in tow. Saved her, too. Put an oil slick down, got lines aboard of her, and had her turn her engines just enough to give her headway. His lines would have parted in a minute if he'd

had to pull her whole weight. Oh! He's a wonder all right. It was a great rescue—great!"

"Was—was anybody lost?" asked Roy, hesitating.

"Small boat's crew, including the third mate and the wireless man."

"And nothing has been heard from them?"

"Absolutely nothing."

"I am the wireless man," said Roy quietly.

"The deuce you are!" exclaimed the *Rotarian's* captain. "The deuce you are! Put her there," and he shook Roy's hand warmly for a full minute. "I'm mighty glad you pulled through. They say you did great work."

Roy's heart leaped with joy. At last recognition had come to him. His captain had changed his mind about him. But to the tug's captain he said simply, "I'm glad to hear about the two steamers. I wish we could get as good news of the third mate and the others in the life-boat."

"Aren't they here with you?"

Roy told him how they had been lost. Then he added, "Will you take me back to Galveston with you?"

"Surest thing you know," exclaimed the captain.

So it happened that when the *Rotarian,* a few days later, tied up at her pier in Galveston, Roy

Mercer was the first person ashore. A single glance told him that Galveston was unharmed. The captain had already told him, however, how the sea-wall had saved the city. Roy raced down the pier and up the gangplank to the *Lycoming*. The first person he met was the third mate. Roy stopped dead in astonishment, then sprang forward and grasped the mate's hand.

"How did you get here?" he cried in astonishment.

The mate told him that after he, Roy, was washed away from the others on the overturned boat, the life-boat was driven straight toward the highest point on Mustang Island. A few sand-dunes remained above the flood, and on these the crew found refuge. Two of the sailors died from exposure, for they had to stay on their tiny refuge, exposed to wind and rain, for fully forty-eight hours. Then they got across Aransas Pass, found food and shelter, and later made their way along the railroad to San Patricio, where they got a train back to Galveston. Barring the sailors who died, all were back on the *Lycoming* safe and sound.

Roy pressed on to the captain's quarters. He was very eager to see him. He felt sure that this time a warm welcome awaited him. He rapped on the captain's door.

"Come in," said a rough voice.

Roy entered and stood before his commander. "I report for duty again, sir," he said.

The captain took his outstretched hand. "I'm glad you escaped," he said, "but you had no business in that small boat. Your post of duty was in the wireless house. You left me in great difficulties. There was no way to communicate quickly with the *Empress*. But I'm very glad you escaped."

CHAPTER XIX

VICTORY

POOR Roy! He had come back expecting a warm welcome from the captain and had been greeted with a reprimand. He backed out of the captain's room, and hot tears welled to his eyes despite his effort to suppress them. He believed that he had come to understand his captain. He believed that his roughness was but a mask for a great heart. But it was evident he was wrong. The captain had no heart. The captain cared nothing for him. The captain still refused to change his mind about wireless. And that meant that when the ship got back to New York Roy would pack his bag and say farewell to her forever. He had done his best to win recognition and failed. His errors were those of ignorance and inexperience, not wilful wrongs. He had tried so hard to help save the *Empress*. Now he was reprimanded for what he had done.

Suddenly a new thought came into Roy's mind. " He said that I left him in difficulties. He said

that I left him in difficulties," repeated Roy to himself. "That means that I was useful to him and that he missed my help. I see that it was wrong to leave my post. Others could row the boat, but no one else could send wireless messages. But since the two ships are safe, I'm glad I went. I'm glad something made the old dragon realize that wireless is worth something."

The purser and the first mate greeted Roy so warmly that it made him forget his disappointment at the captain's cold reception. In Mr. Robbins and Mr. Young, at least, he had two firm friends. So long as he lived, he would never forget them.

He went to his room and took off his torn and stained uniform. "I ought to get another," he muttered, "but I won't. After I reach New York I'll probably never need a uniform."

He dressed himself in the old suit he had worn the day he came to New York. That was only three months previously, but Roy had seen so much and gone through so much that it seemed like ages. What Roy did not appreciate was how he had grown during those three months—not in body, but in mind and character. The stern discipline of his captain had held him so rigidly to his duty that it had become second nature to do his duty. He had developed those very qualities

that his captain most desired in his subordinates, but apparently could not see in Roy.

After a while Roy went down on the lower deck, where he heard the sound of hammers and saws. Rails had been carried away, bulwarks smashed, and many minor injuries done to the ship. But these could be readily repaired and carpenters were working busily to remedy the trouble. Meantime, the cargo was shooting into the hold as fast as ever. When he had fully inspected the *Lycoming,* Roy went over to the *Empress.* She was battered pretty badly. Roy went aboard and made the acquaintance of Stimson, the wireless man. The latter greeted him with the utmost cordiality and introduced him to the ship's officers, from the captain down. All expressed their gratitude to Roy for the part he had had in their rescue. So Roy went back to the *Lycoming* much happier in mind than he had been when he left her.

Twenty-four hours later the *Lycoming* steamed out of the harbor. Five days later still she lay at her dock in New York. It was Roy's last day aboard of her, he supposed, and he was depressed and sick at heart. He had become fond of the ship and her crew. He had even come to love his commander, though not in the way he loved the purser. Just now he felt very

hard toward Captain Lansford. He expected the new wireless man would come aboard in a few hours. Before he came, Roy wished to say good-bye to his friends, so that he could leave promptly. He started for the purser's office. On the way, he passed a young man who inquired for the captain. Roy directed him to the captain's quarters, then turned away. He heard the door open and the man say, "Captain Lansford, I'm the new wireless man. The Marconi people instructed me to report to you for duty."

"New wireless man!" Roy heard the captain roar, and though he did not mean to eavesdrop, he stood as though rooted to the deck. "New wireless man!" cried the captain. "What do I want of a new wireless man? I've got the best wireless man afloat. Go back and tell 'em so."

"But I understood that you wanted to make a change—that your present operator is too young."

"You did, eh? Well, he is a bit young, but I can trust him absolutely. And he's got more brains than your whole outfit put together. It'll be a cold day when I go to sea without him. Good-day, sir."

The surprised Marconi man turned about and made for the pier. Roy fled to the wireless house. His heart was beating wildly. His whole soul

was singing. He had made good. The captain wanted him to stay. The captain did like him, despite his rough manner. His jubilation was so great he could hardly sit still.

Presently his brow puckered. How was he to get the captain to tell him that he was to stay? An idea came to Roy. He jumped to his feet and ran down to the captain's cabin.

"Come in," said a gruff voice, in answer to his knock.

"I've come to say good-bye, sir," said Roy. "You know my three months are up. I am sorry, sir, for I should like to stay on the *Lycoming*. Good-bye, sir."

The captain jumped to his feet. "Who told you to leave the ship?" he roared.

"No one now, sir, but when I came aboard you said I was to stay three months. The time is up. I supposed you wanted me to leave."

"I don't. That is, if I've got to have a wireless man aboard you might as well stay. I don't want to have to break another one in. You are not relieved from duty. Go to your quarters, sir."

Roy went back to the wireless house. The captain's gruff words could not still the song that his heart was singing. He had won. He had made good. His captain liked him, perhaps

loved him—in his strange way. He thanked his lucky stars that he had been an eavesdropper. Now he knew the truth about the captain. The skipper of the *Rotarian* had told the truth. The rough manner was only a mask to cover a great heart. All Roy's pent-up affection went out to this commander. He understood him now. Like the first mate and the purser, he felt a genuine affection for his captain. It had taken a long time to see beneath the surface, but nothing could now blind his eyes. He understood his commander. And, best of all, he had made good.

"Well," he sighed joyfully, "I guess I'll need a new uniform after all."

THE YOUNG WIRELESS OPERATOR - AFLOAT

THEISS

W. A. WILDE COMPANY